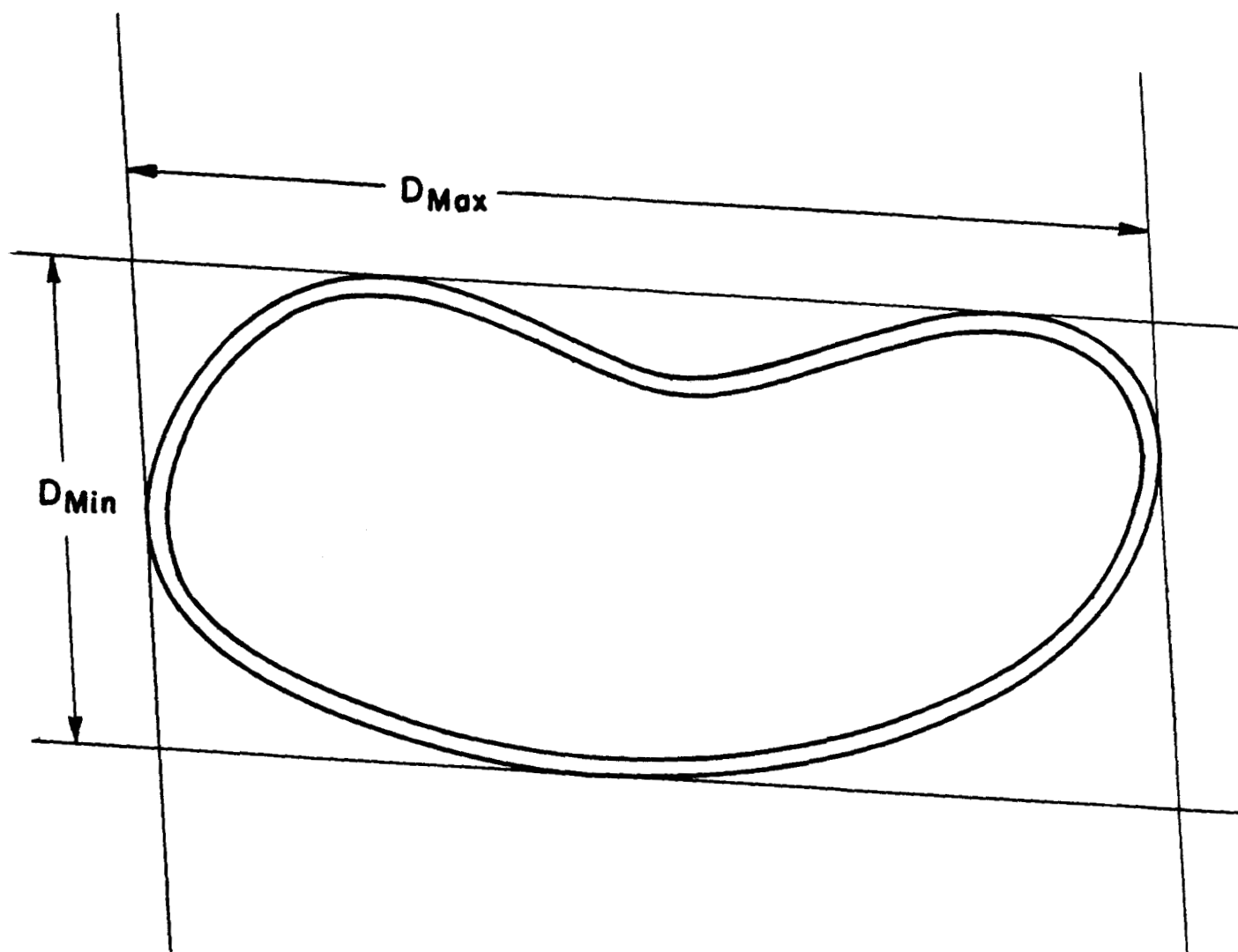


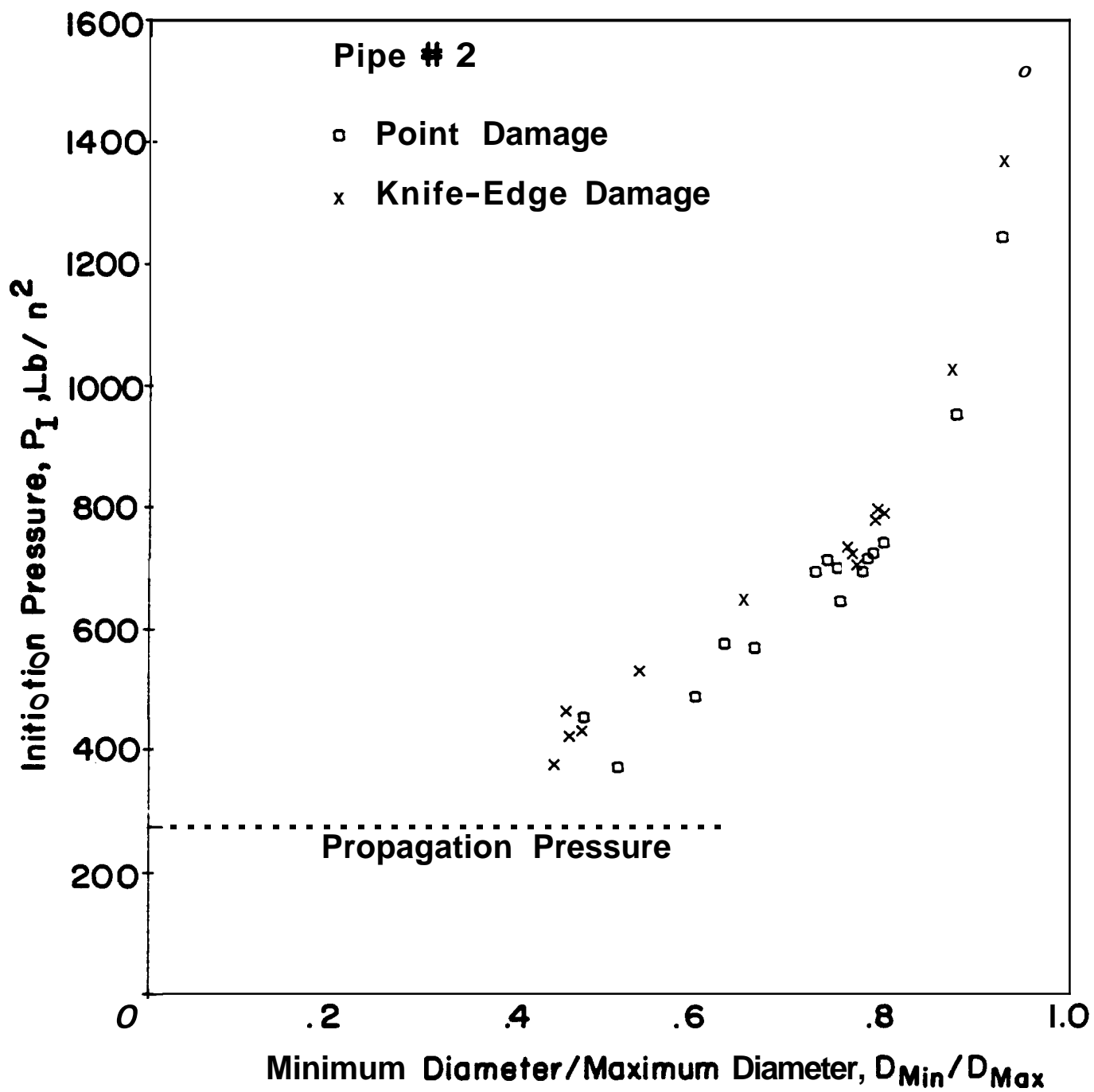
EFFECT OF INDENTOR DIAMETER ON INITIATION PRESSURE

FIG. 13



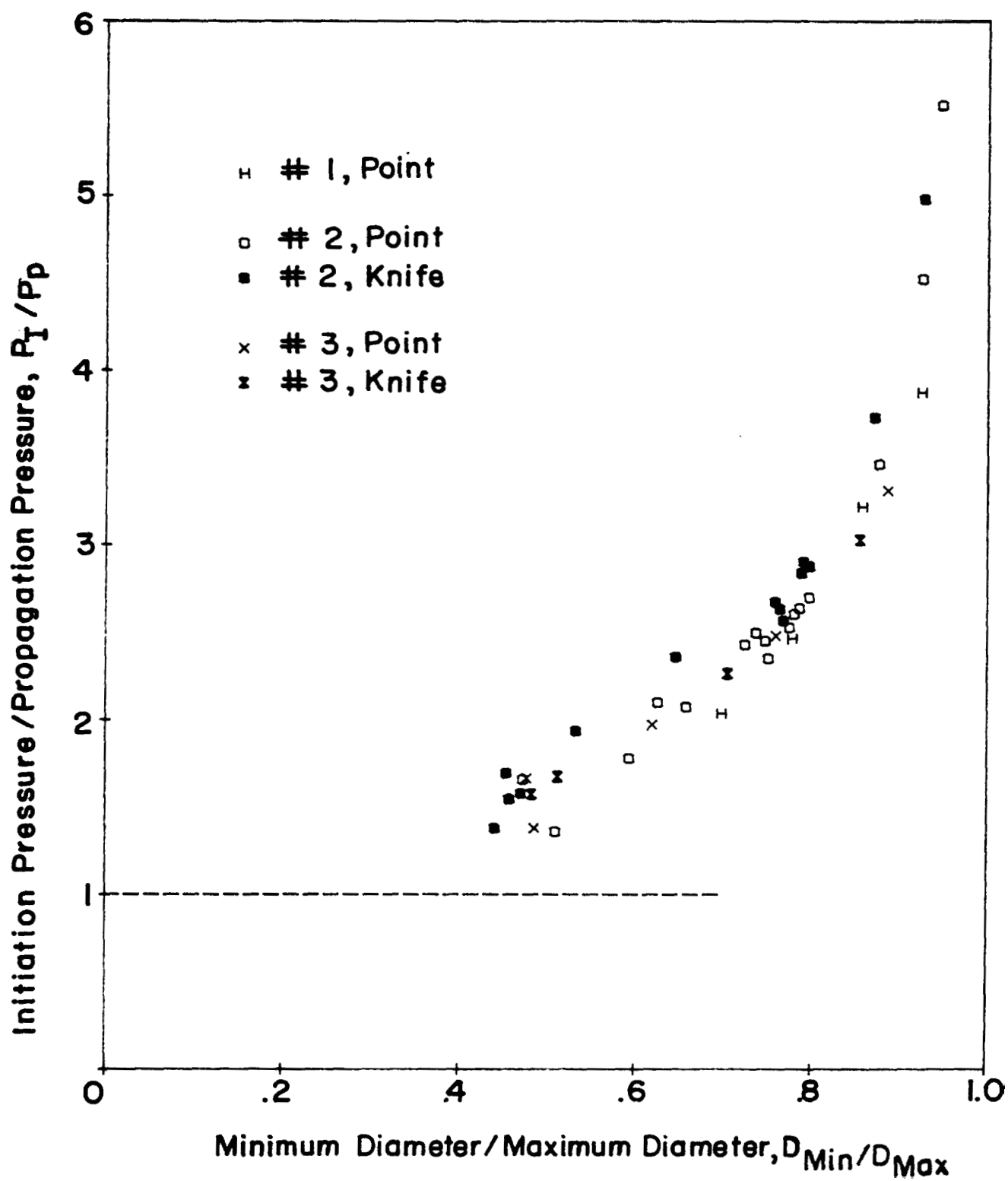
GEOMETRIC DESCRIPTION OF MOST  
DAMAGED SECTION

FIG.14



COMPARISON OF POINT AND KNIFE-EDGE DAMAGE

FIG. 15



INITIATION PRESSURE DATA CORRELATION,  $D_{Min} / D_{Max}$

FIG. 16

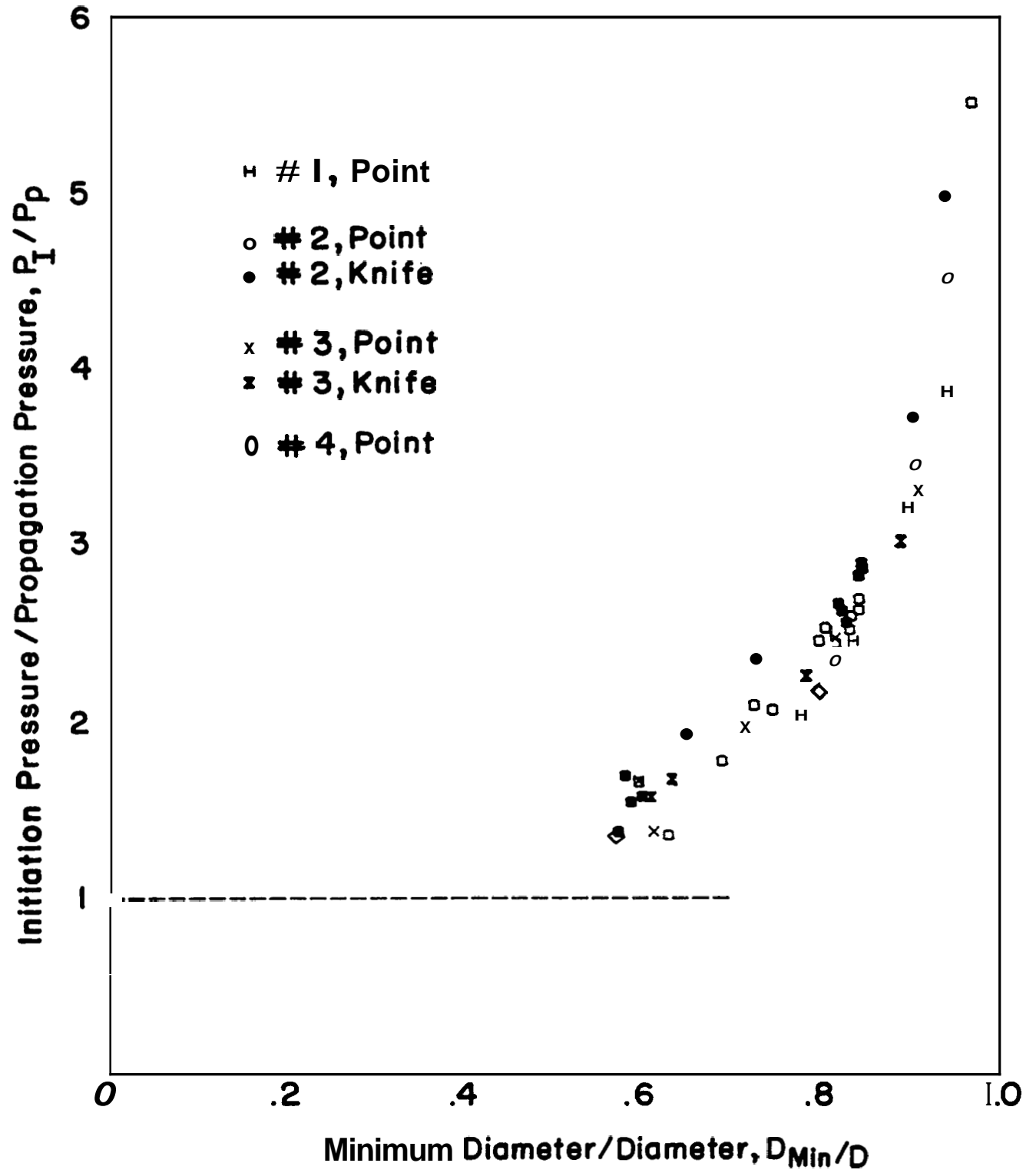


FIG.17

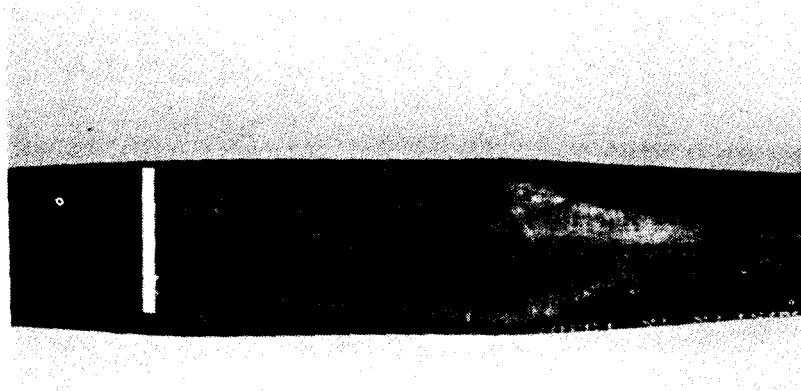


FIG. 18 PROPAGATING BUCKLE THAT LED TO A FRACTURE

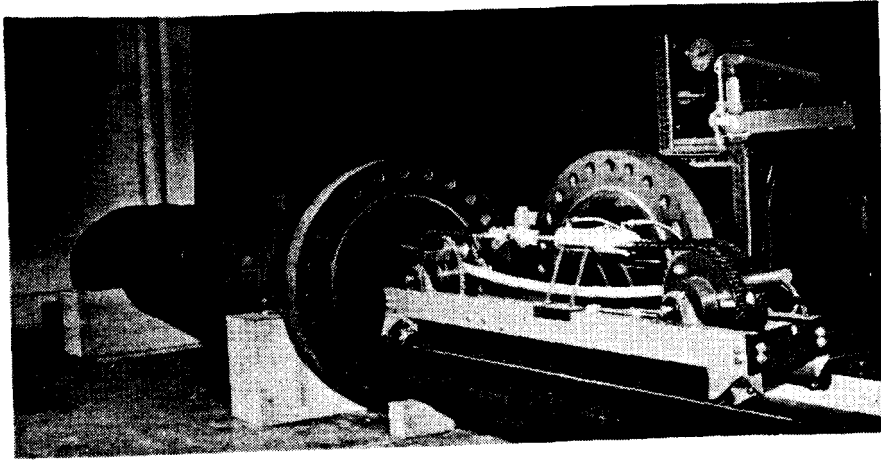


FIG. 19 - COMBINED BENDING - PRESSURE TEST FACILITY

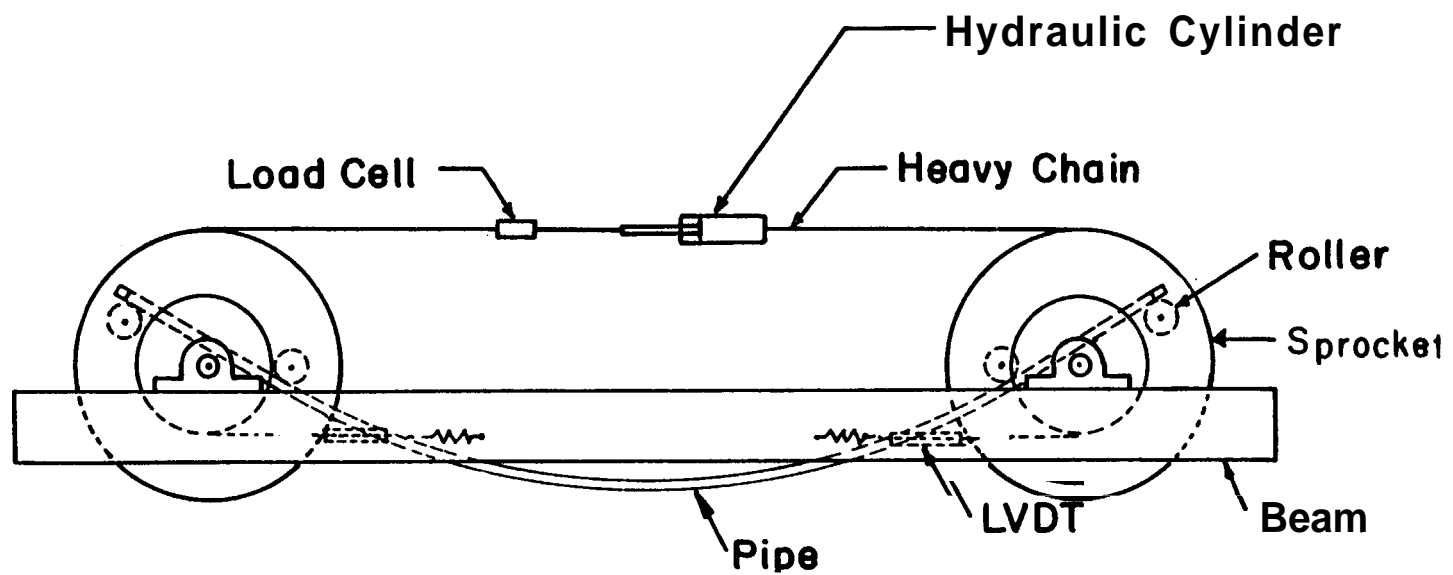
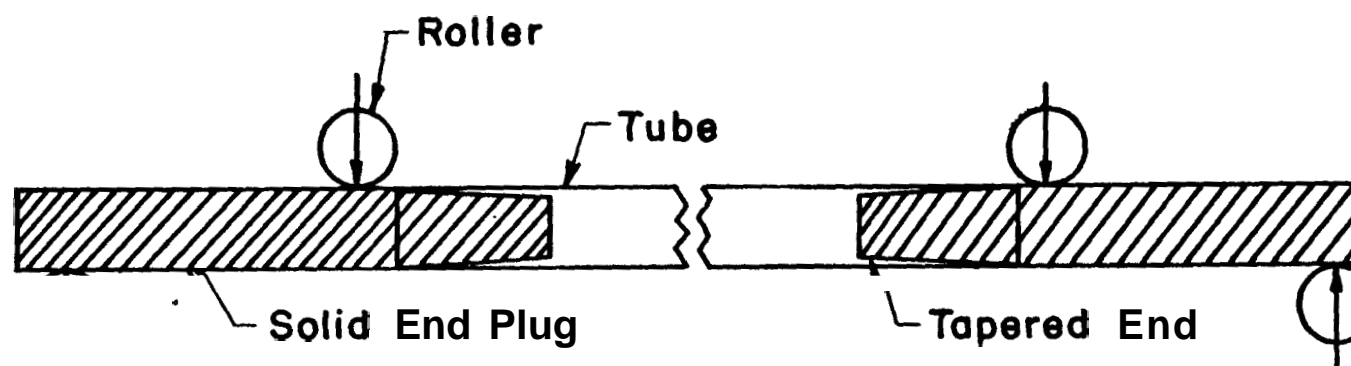


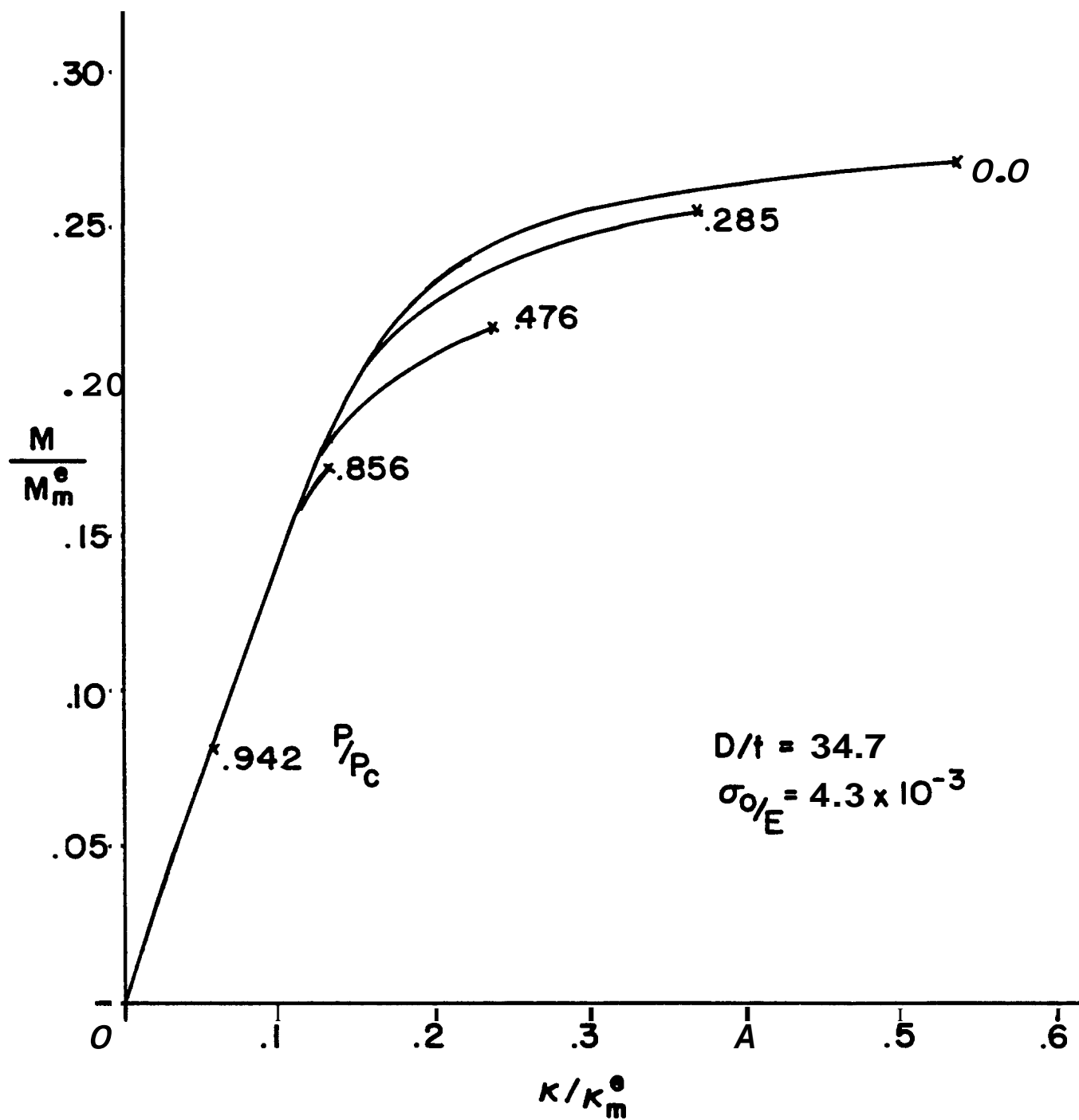
FIG.20 PURE MOMENT BENDING DEVICE





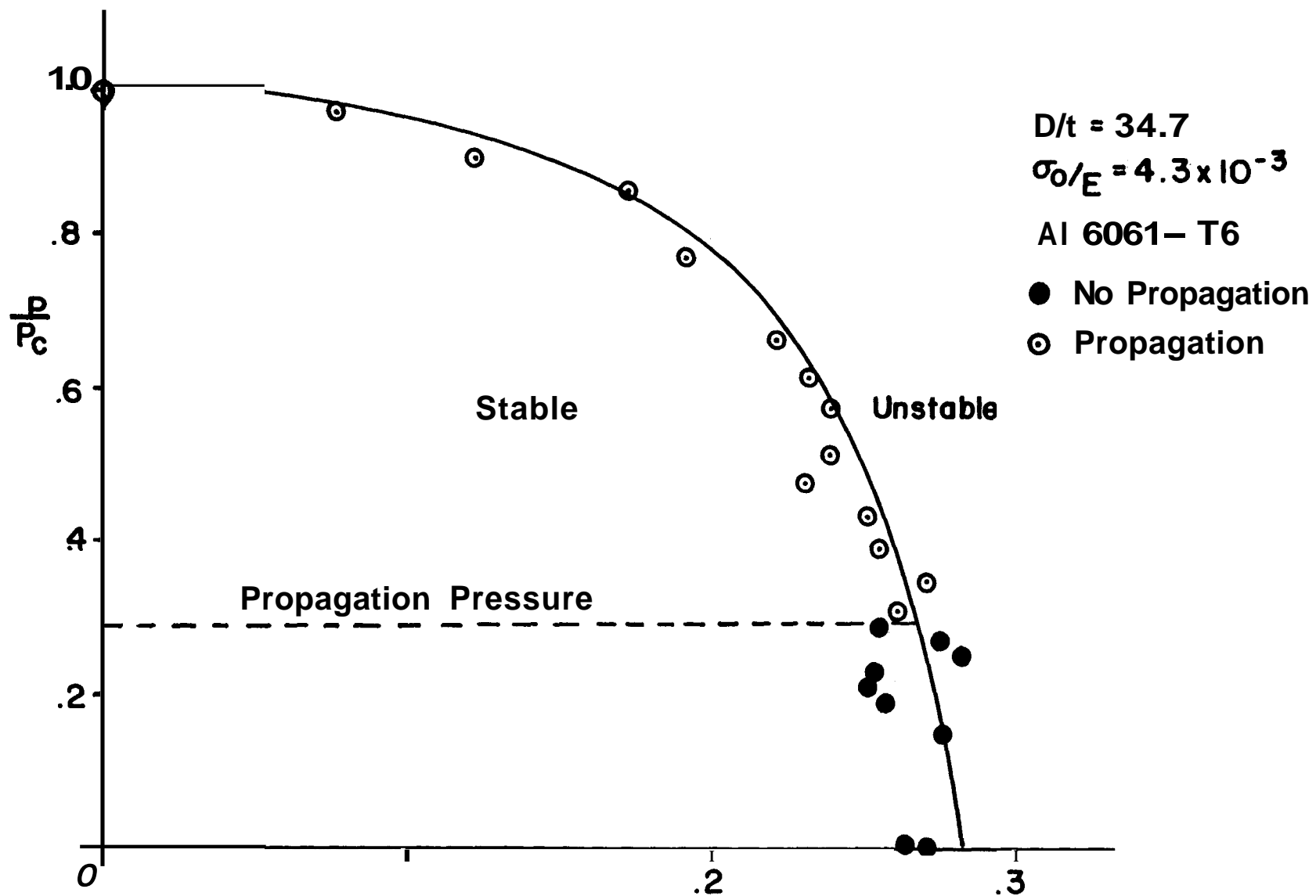
**TEST SPECIMEN AND END-PLUG ASSEMBLY**

**FIG. 21**



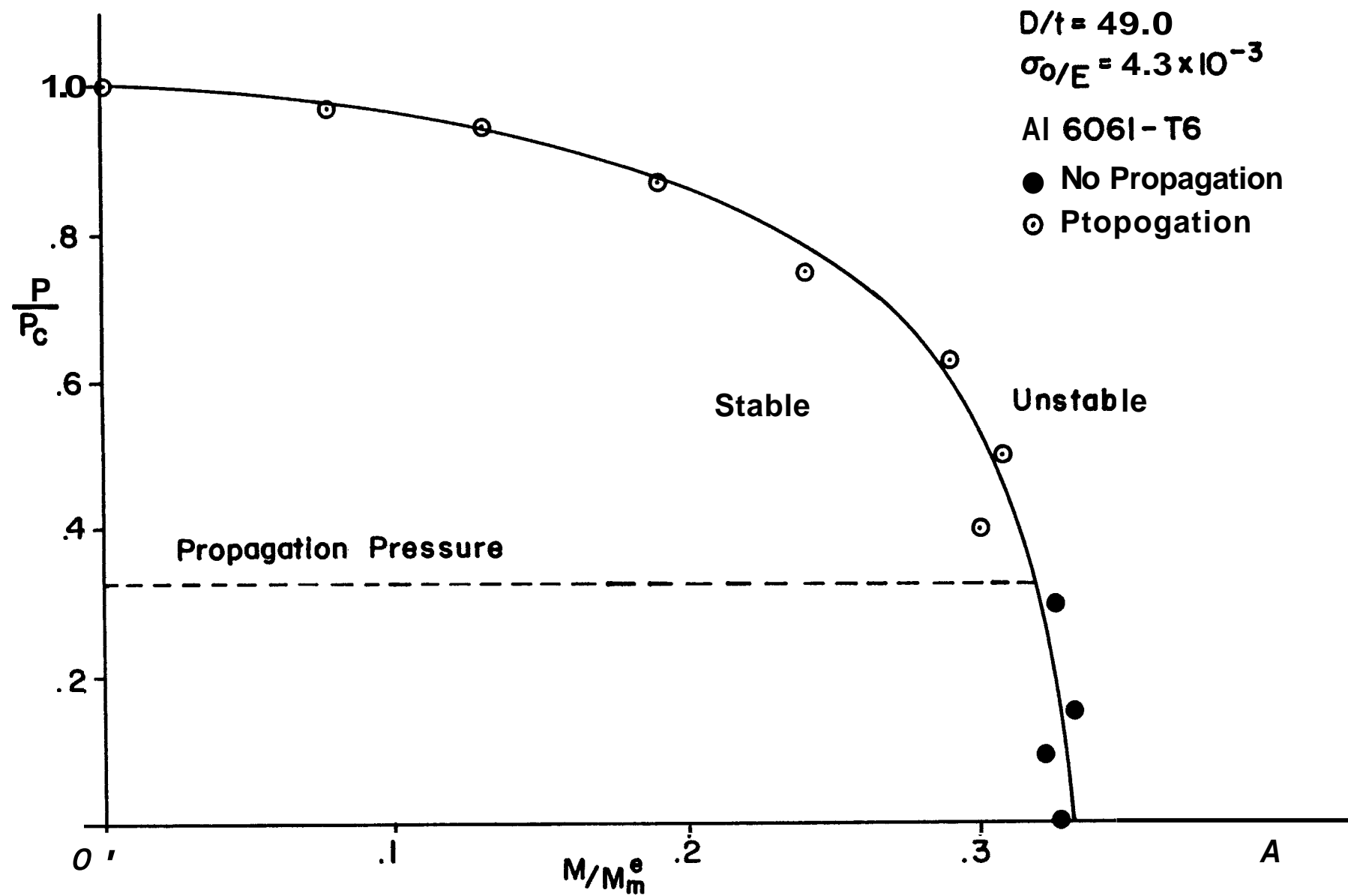
MOMENT-CURVATURE RESPONSE AS A FUNCTION OF PRESSURE

FIG.22



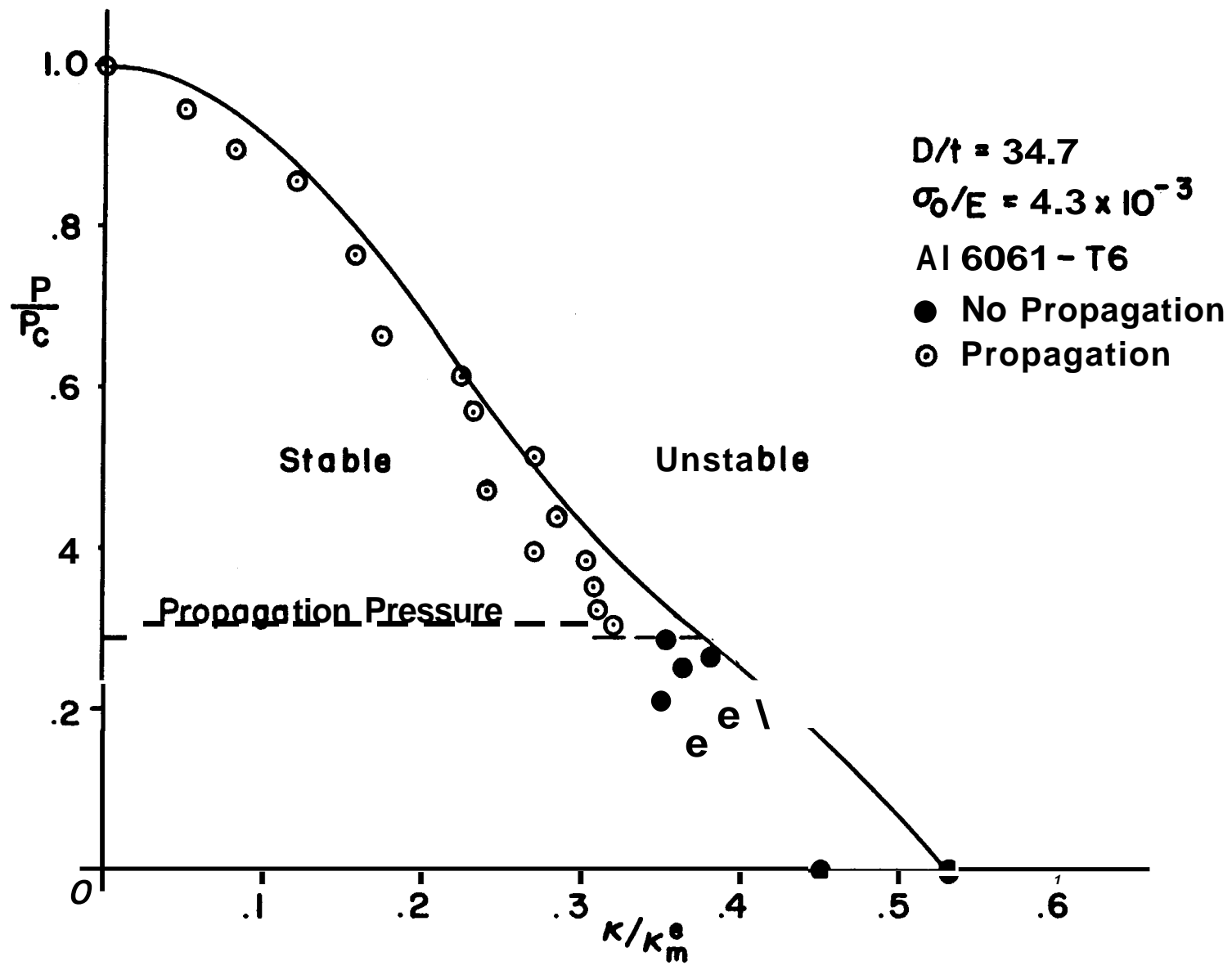
MOMENT-PRESSURE INTERACTION,  $D/t = 34.7$

FIG. 23



MOMENT-PRESSURE INTERACTION FOR  $D/t = 49.0$

FIG. 24



CURVATURE-PRESSURE INTERACTION FOR  $D/t = 34.7$

FIG.25

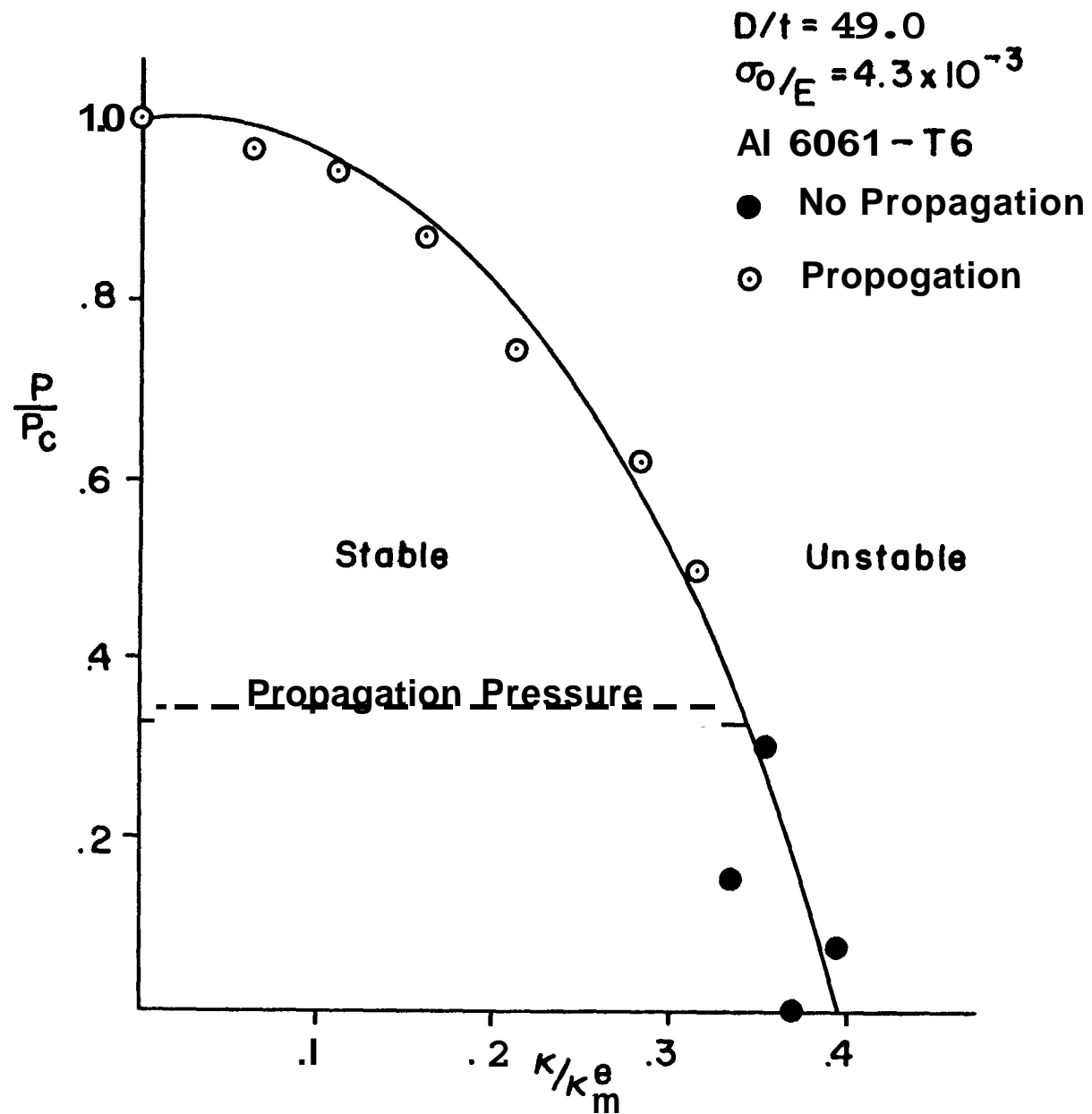


FIG.26 PRESSURE-CURVATURE INTERACTION FOR  $D/t = 49.0$

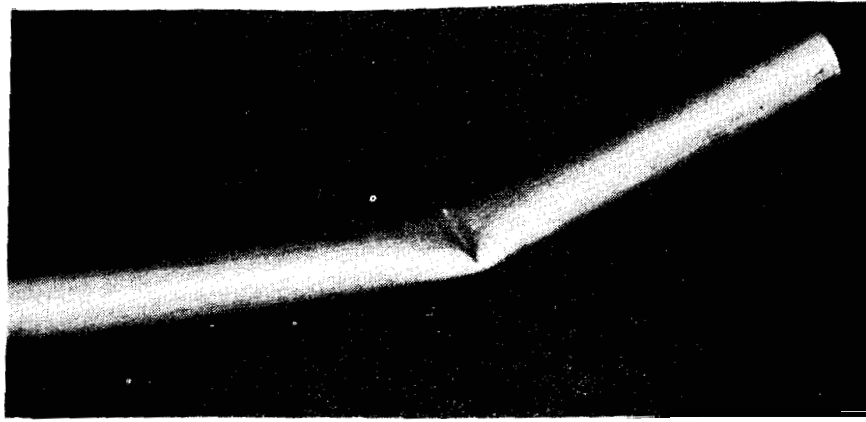


FIG. 27 BENDING BUCKLE ( $D/t = 34.7$ )

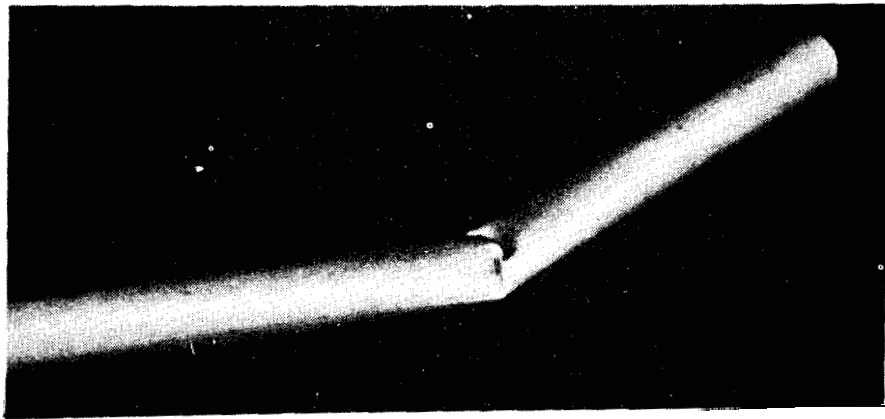


FIG. 28 BENDING BUCKLE ( $D/t = 49.0$ )

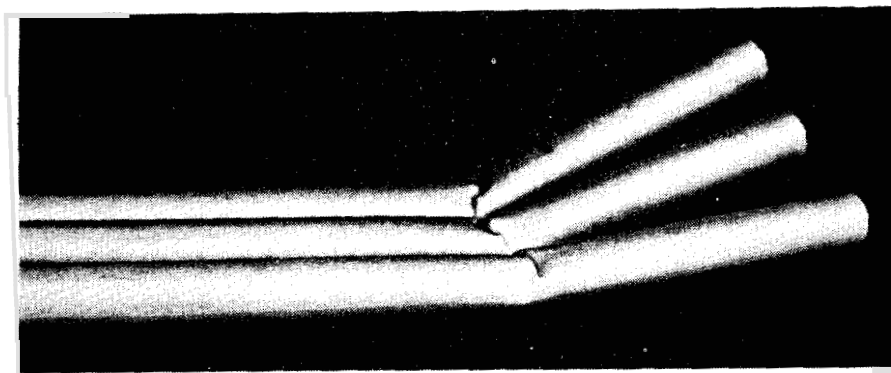


Fig. 29 PIPES WITH DIFFERENT BEND ANGLE ( $D/t = 49.0$ )

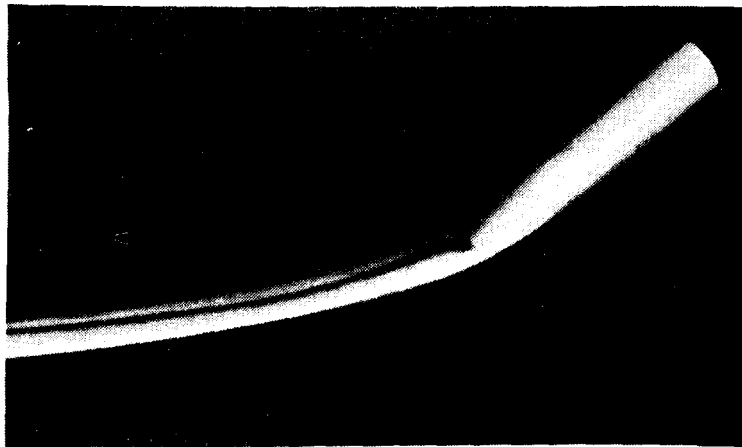
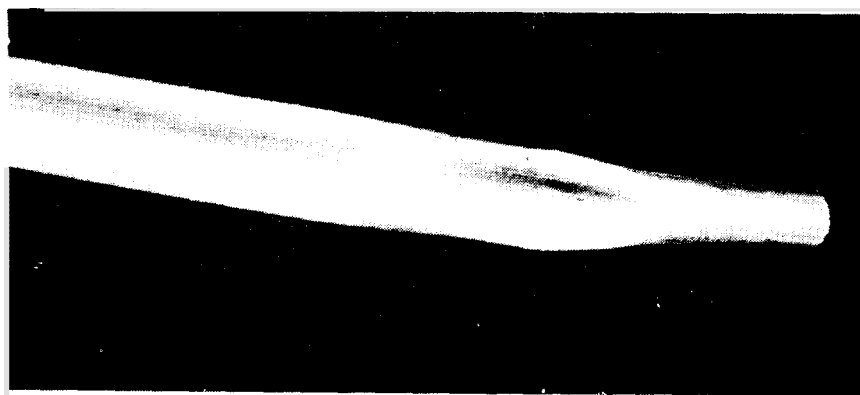
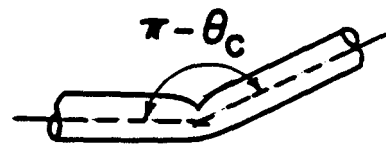


FIG. 30 PROPAGATING BUCKLE INITIATED FROM A BENDING BUCKLE

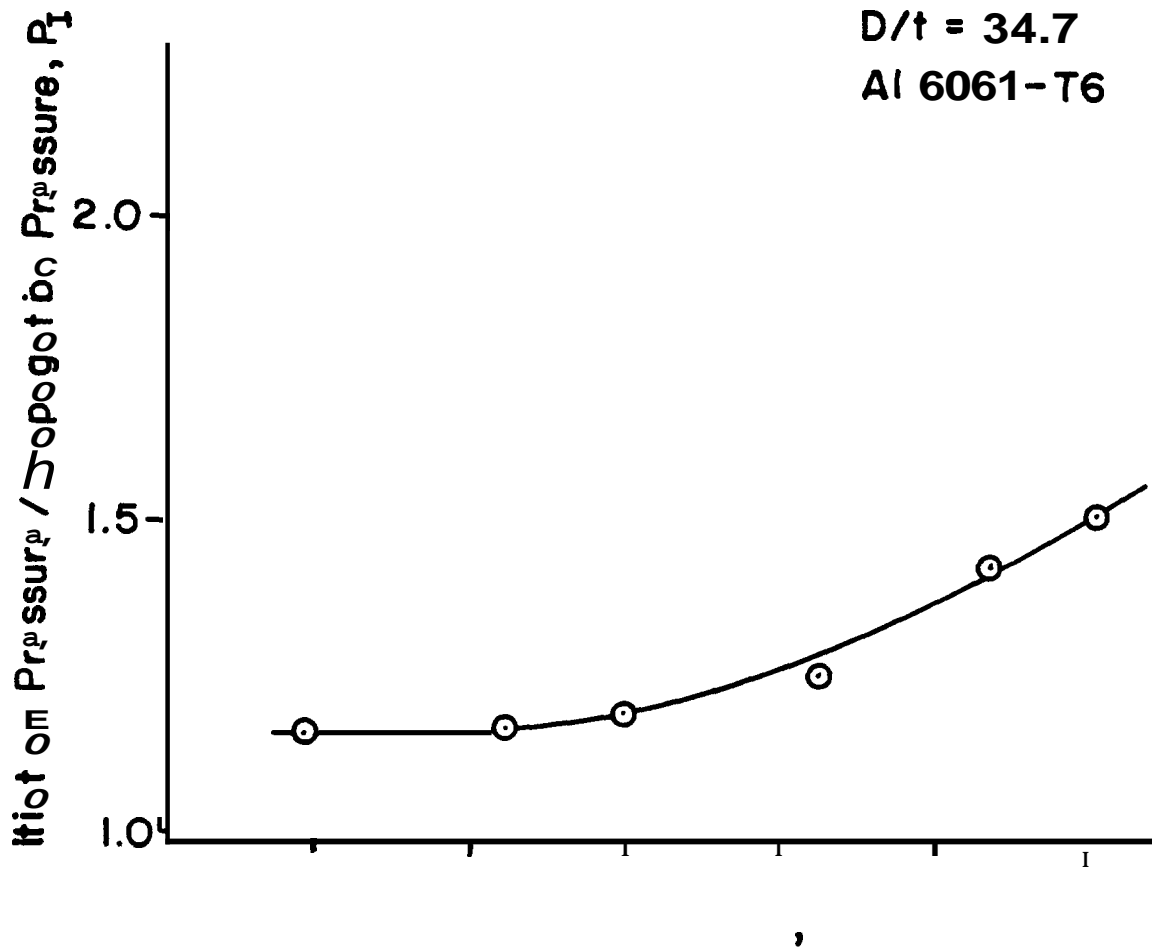


FIG, 31 LOCAL COLLAPSE UNDER EXTERNAL PRESSURE  
( $D/t = 34.7$ )



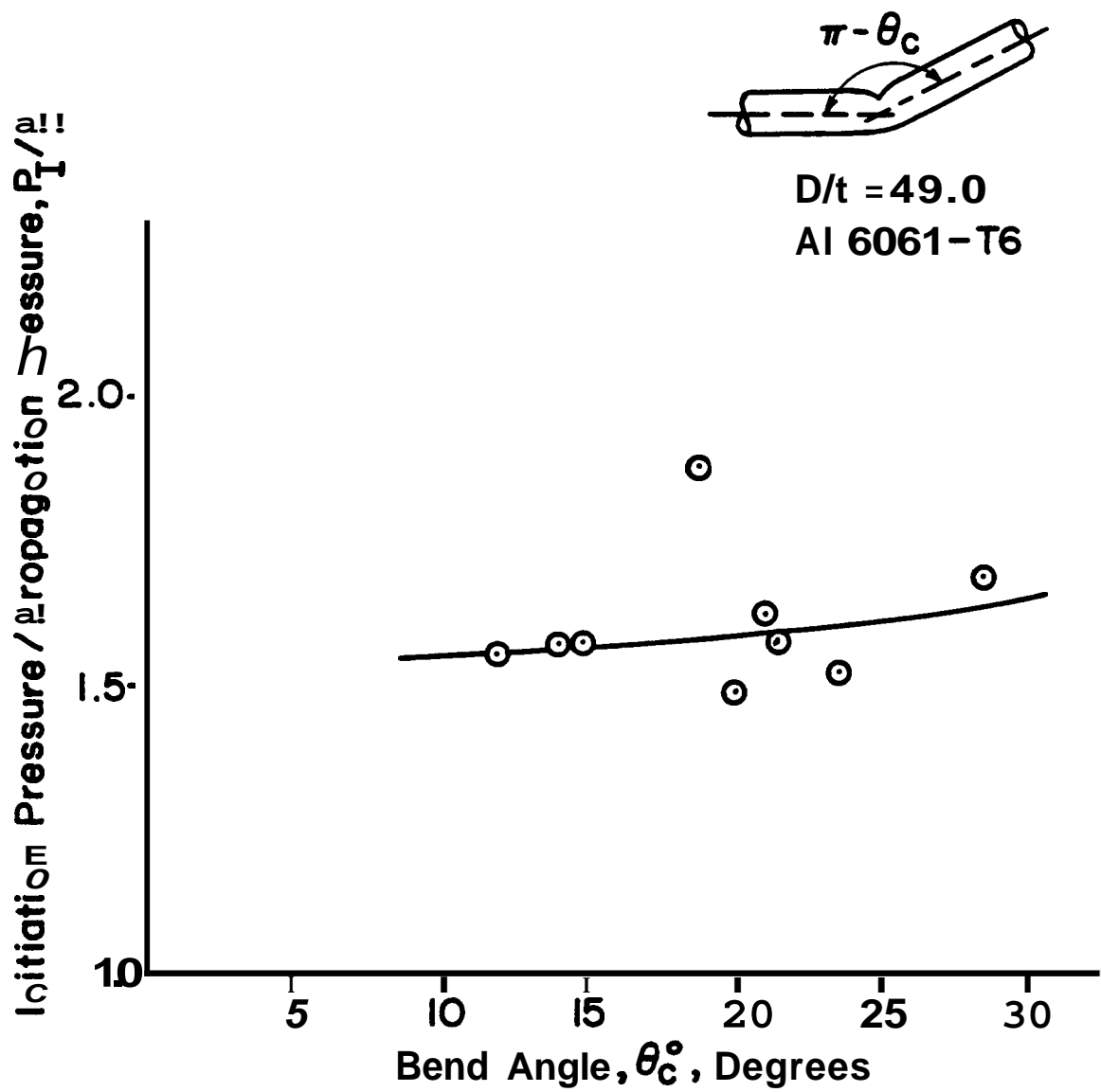


$D/t = 34.7$   
Al 6061-T6

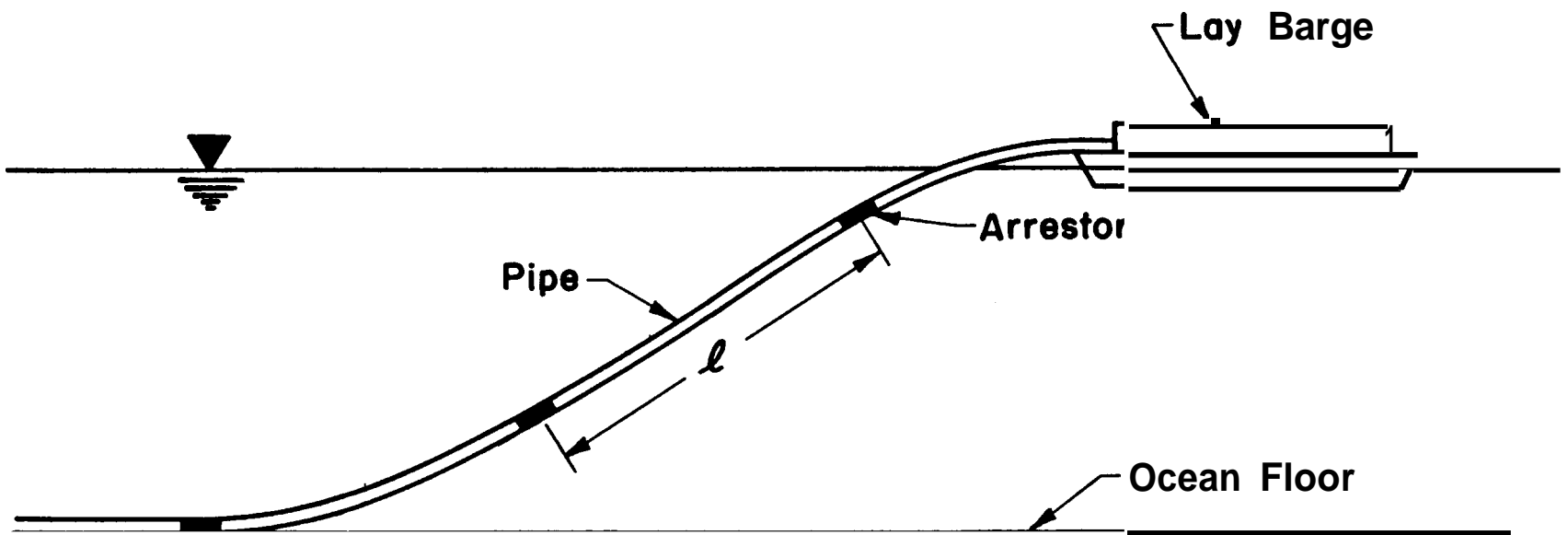


VARIATION OF INITIATION PRESSURE WITH  
BEND ANGLE  $\theta_c$

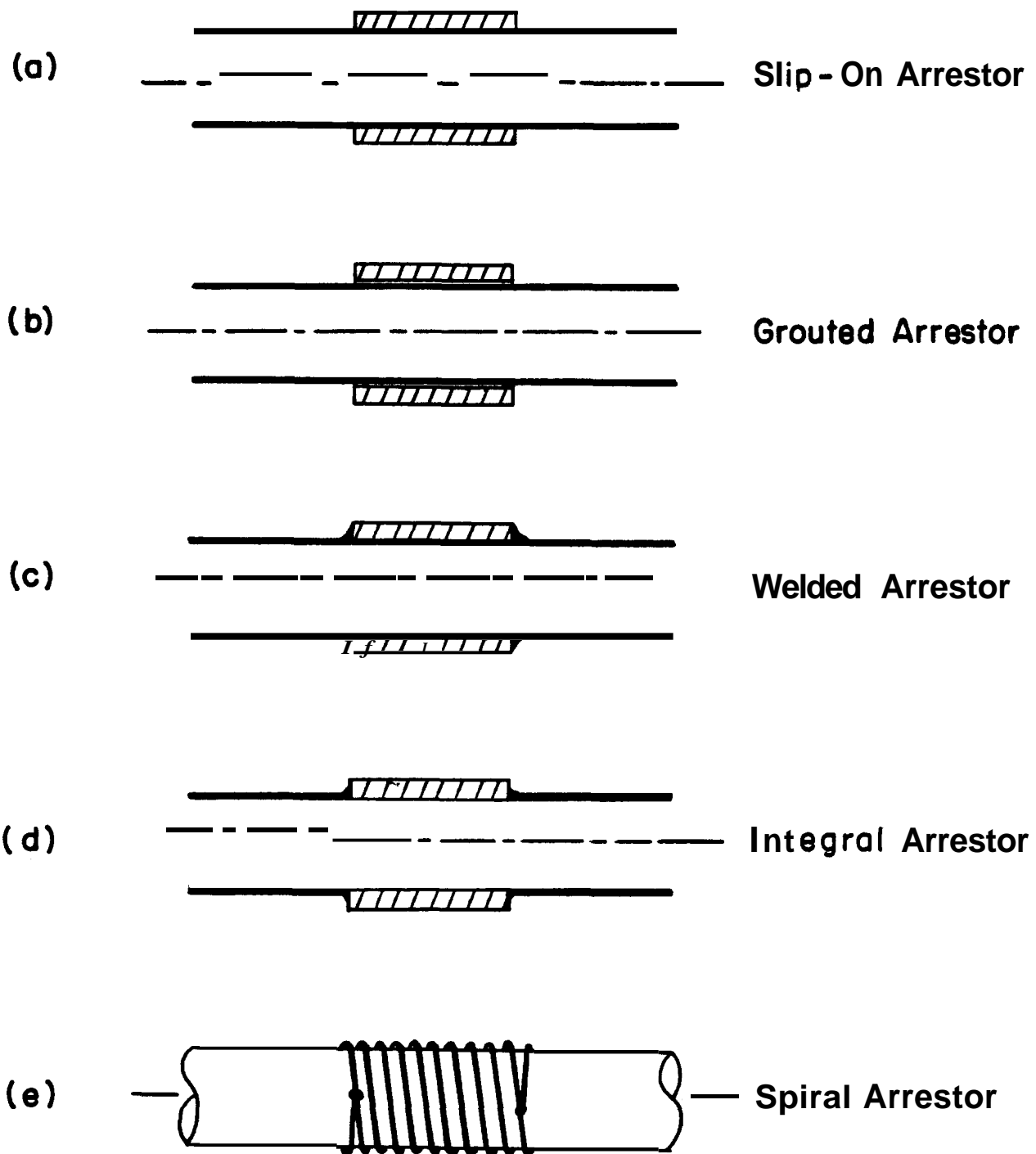
FIG.32



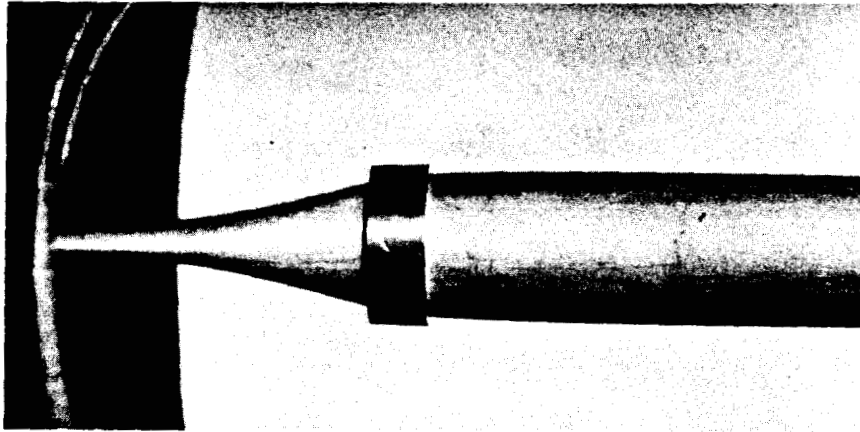
VARIATION OF INITIATION PRESSURE WITH  
BEND ANGLE  $\theta_c$



**FIG.34 PIPE LAYING OPERATION OFF A LAY BARGE**



**FIG. 35 DIFFERENT ARRESTOR DESIGNS**



**FIG. 36 BUCKLE ARREST BY SLIP-ON ARRESTOR**

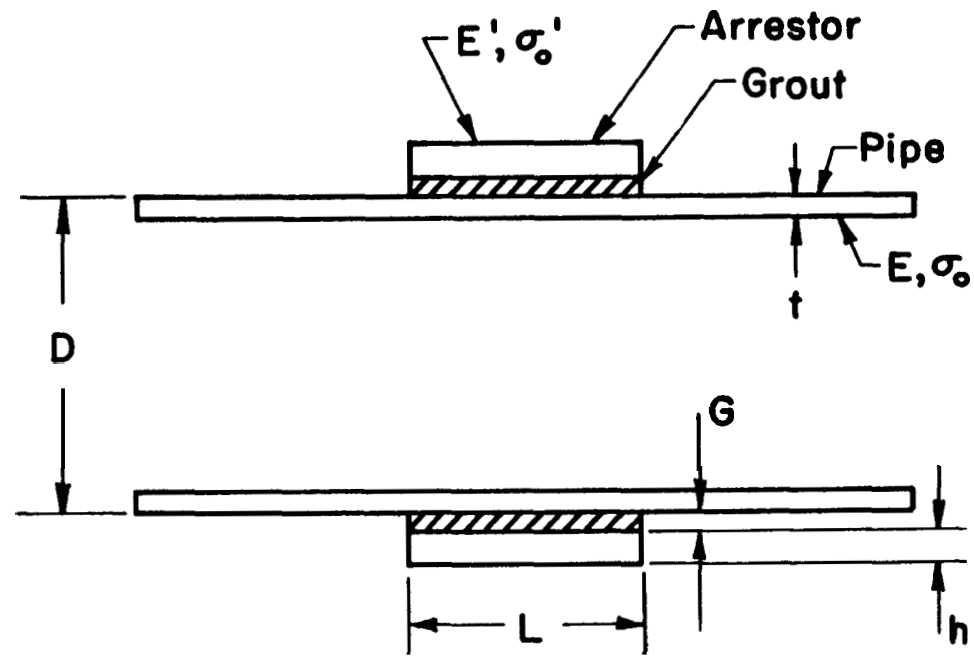


FIG.37 PIPE AND ARRESTOR PARAMETERS

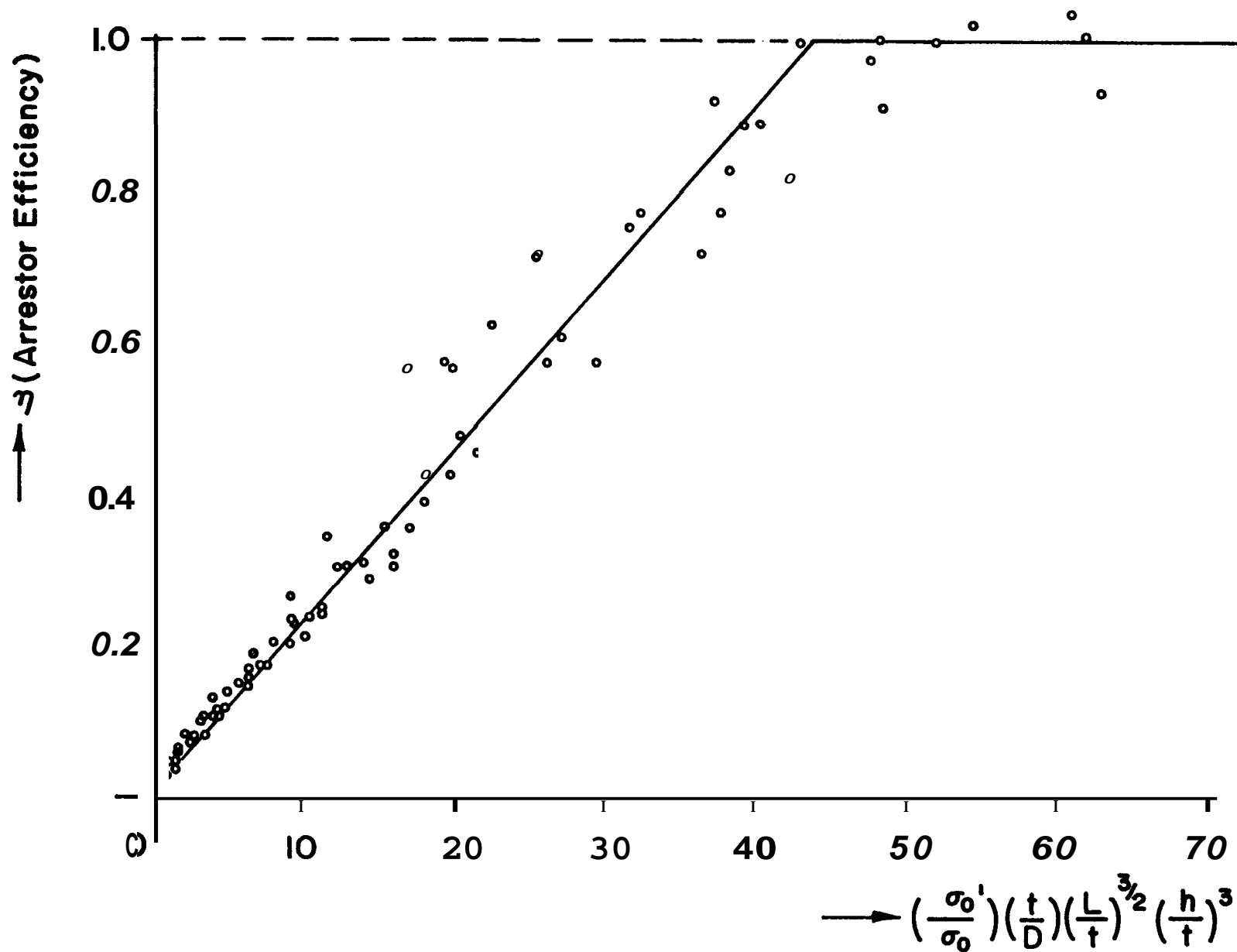
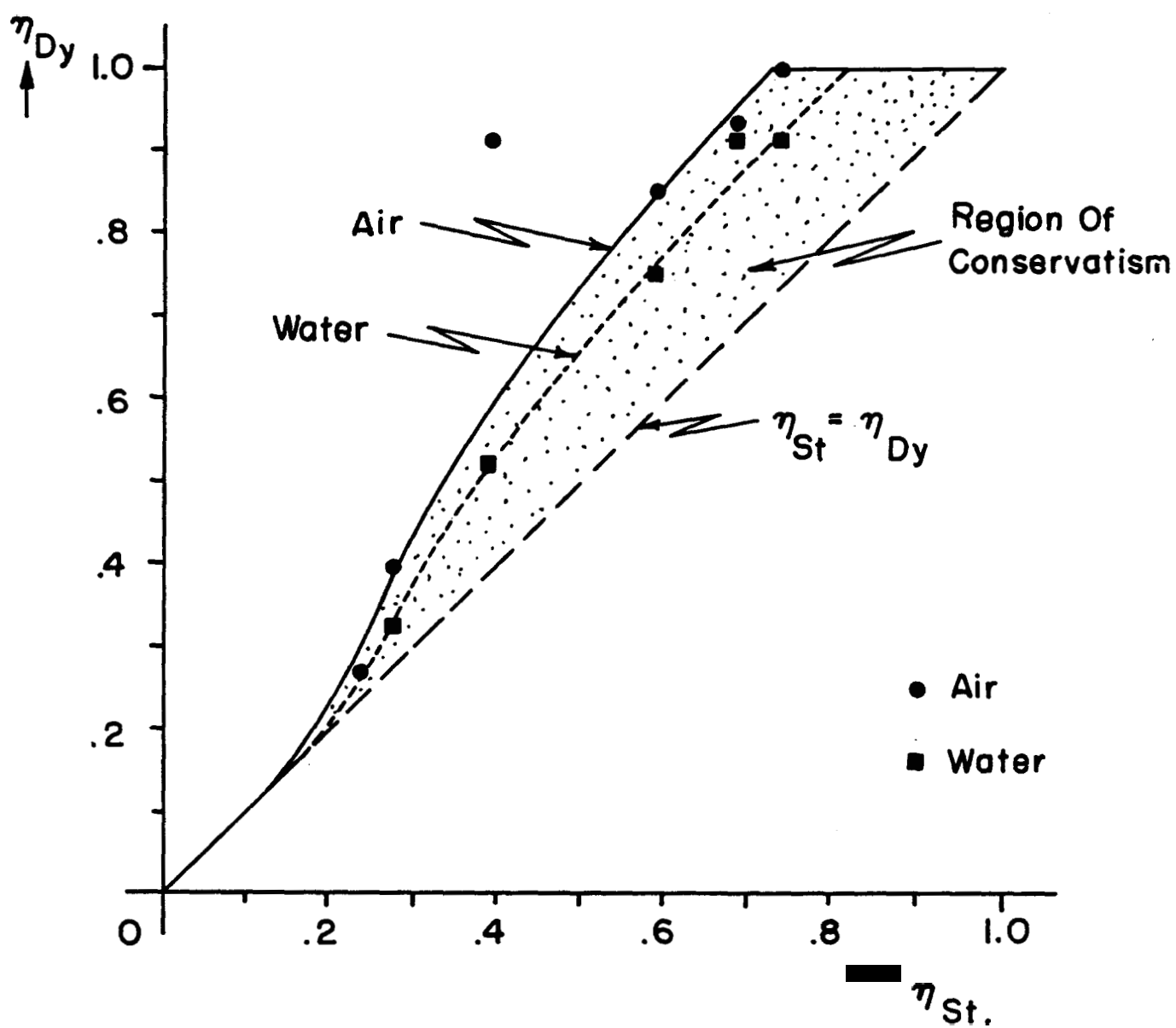


FIG. 38 EXPERIMENTAL RESULTS PLOTTED AGAINST ARRESTOR EFFICIENCY  
EMPIRICAL FORMULA



**FIG.39 DYNAMIC VS STATIC ARRESTOR EFFICIENCY  
FOR AIR AND WATER AS PRESSURIZING  
MEDIA**



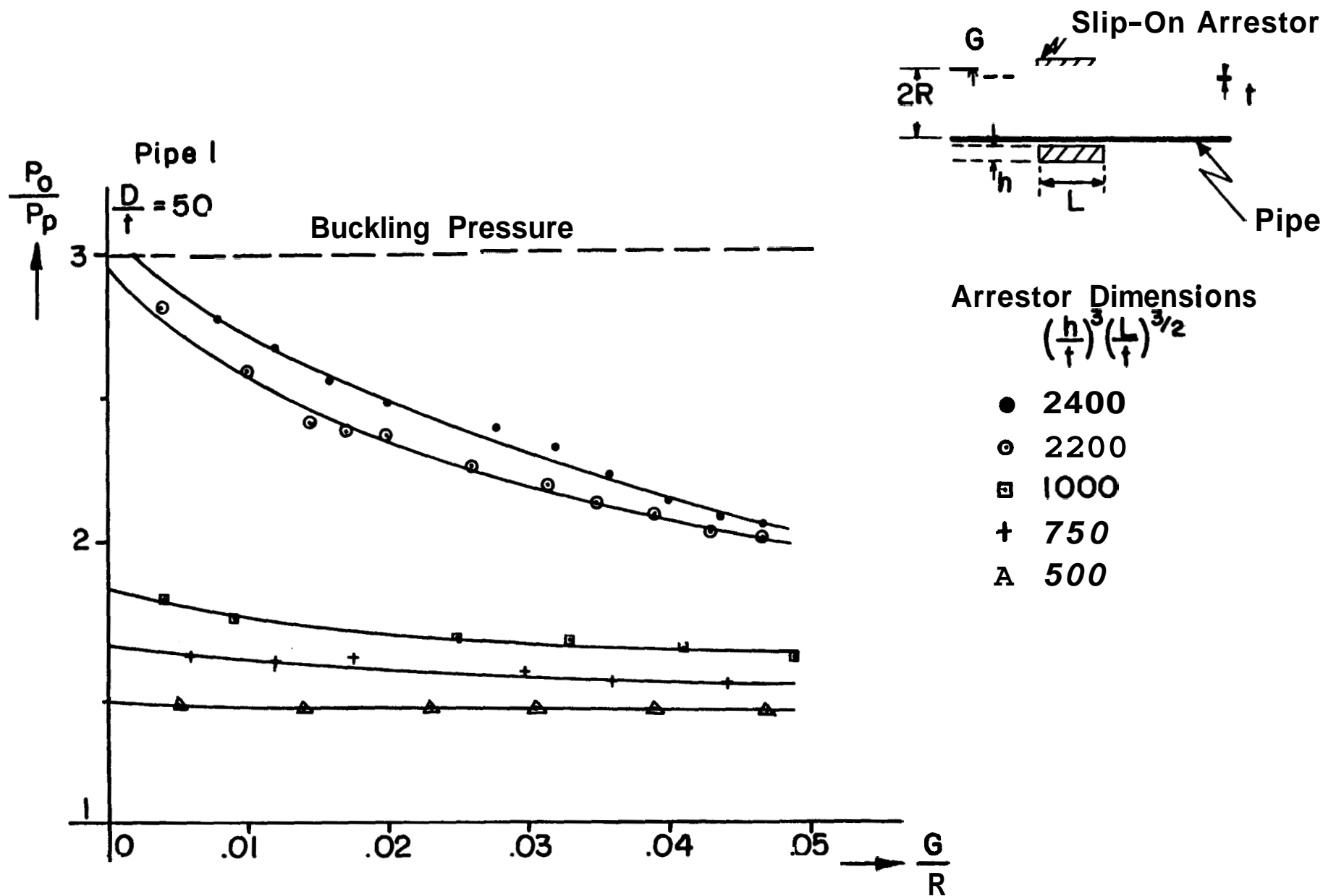
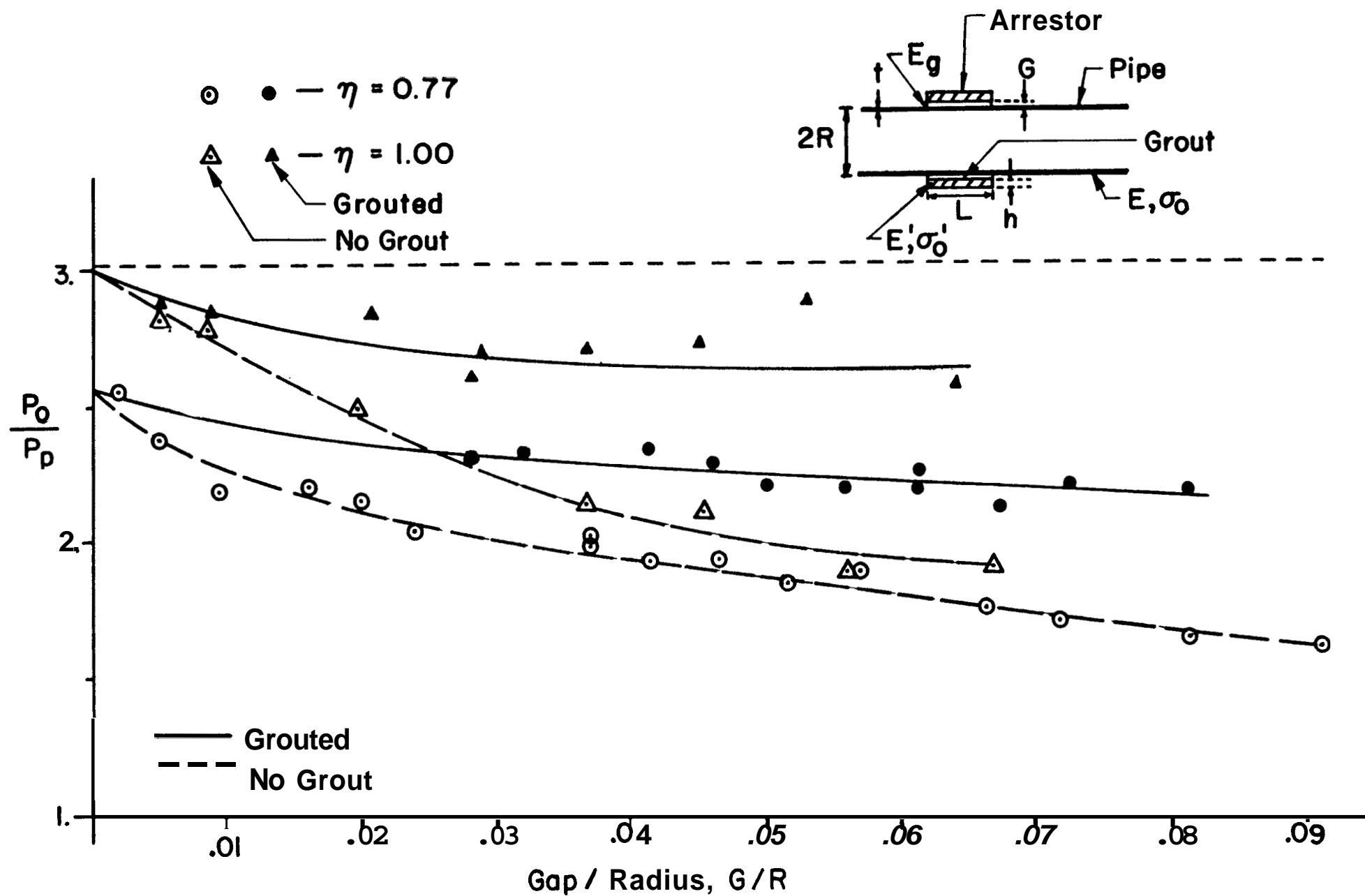


FIG.40 VARIATION OF CROSSOVER PRESSURE WITH GAP SIZE FOR DIFFERENT ARRESTOR DIMENSIONS



CROSSOVER PRESSURE OF GROUTED AND UNGROUTED ARRESTORS

FIG.4I

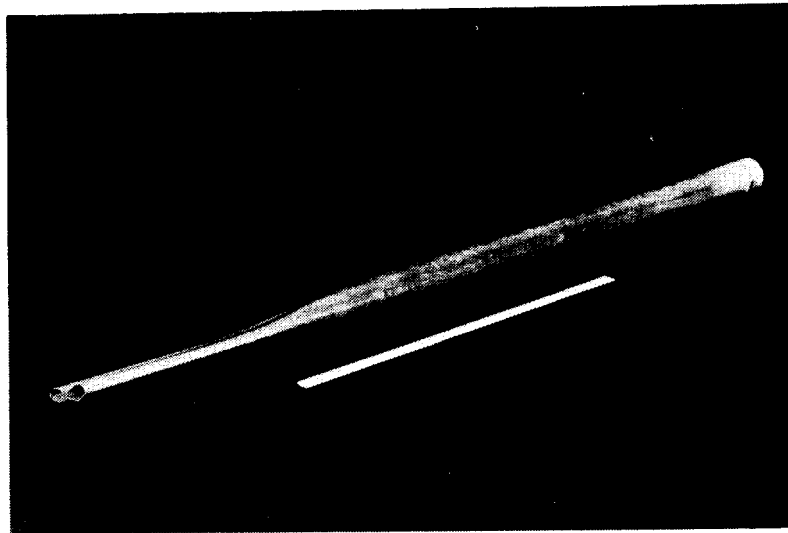
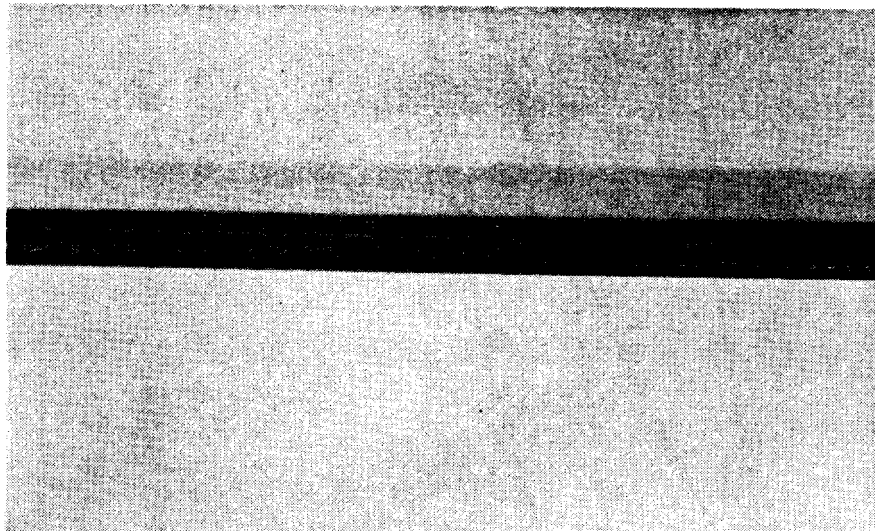
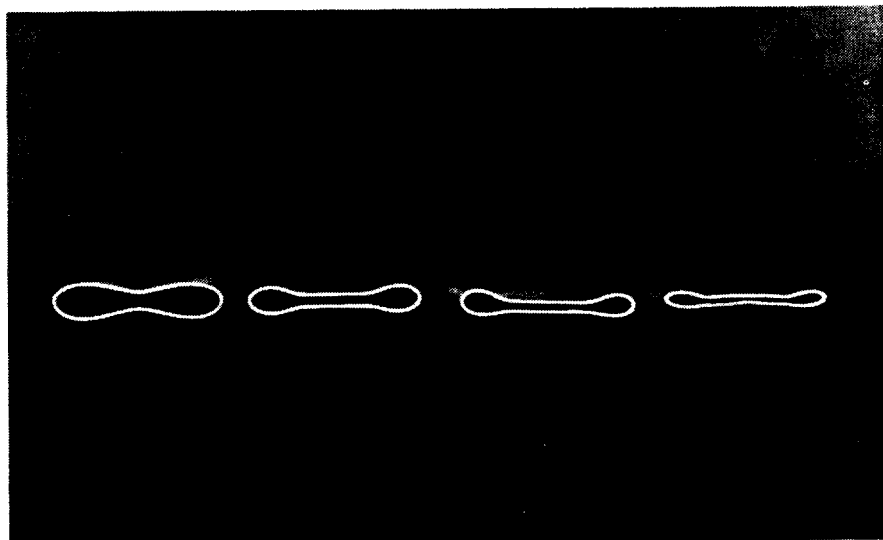


FIG. 42 BUCKLE THAT PROPAGATED AND THEN CAME TO A STOP. NOTE THE "DUGBONE" COLLAPSE MODE.



FIG, 43 WET BUCKLE RESULTING FROM A PROPAGATING BUCKLE



FIG, 44    RESULTING CROSS SECTIONS AFTER PROPAGATION AT  
FOUR DIFFERENT PRESSURES BETWEEN  $P_p$  AND  $P_c$

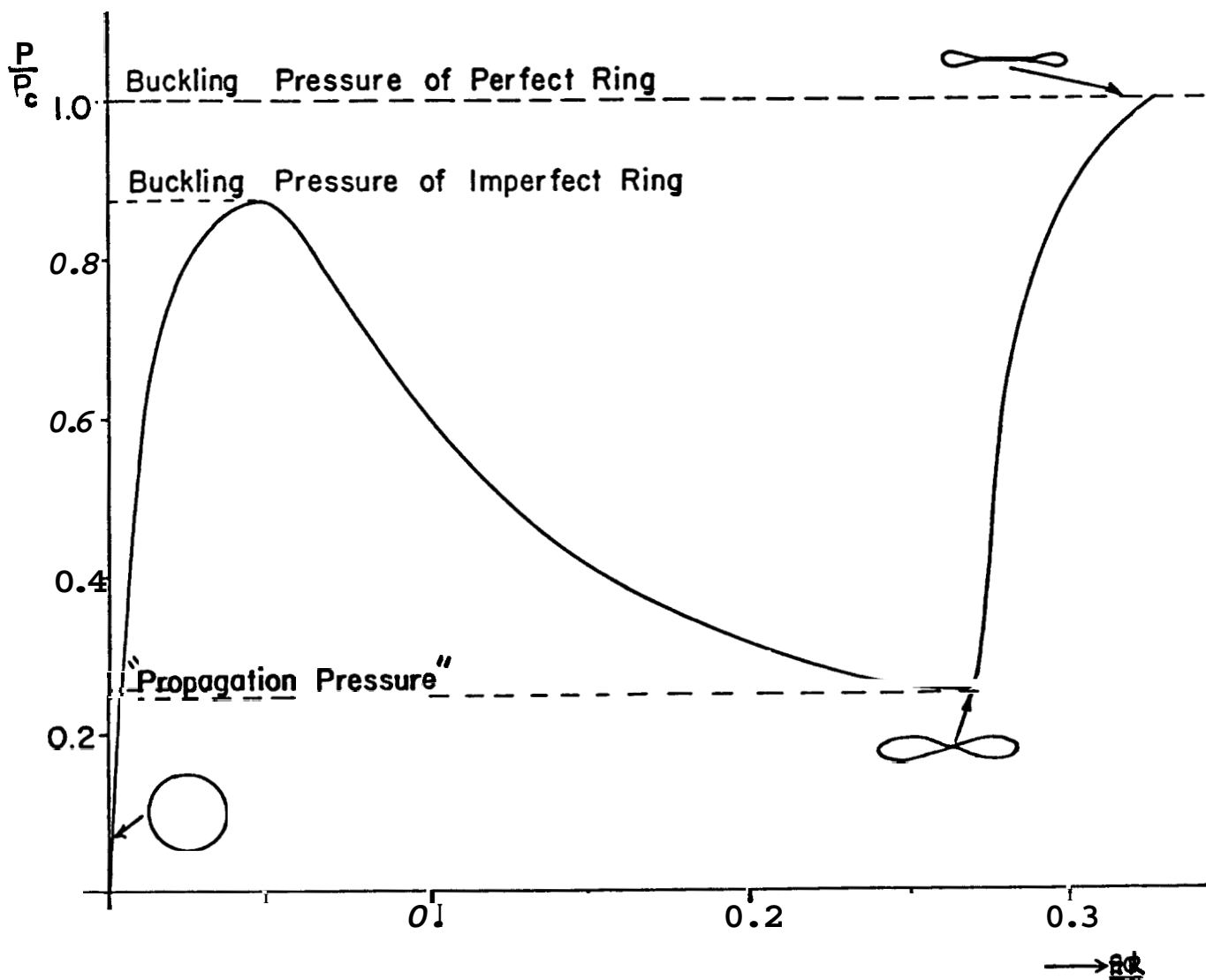
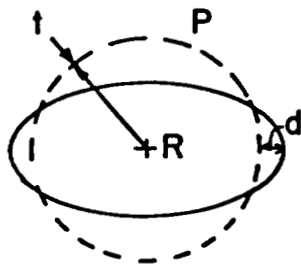


FIG.45 LOAD DISPLACEMENT CURVE OF COLLAPSING RING

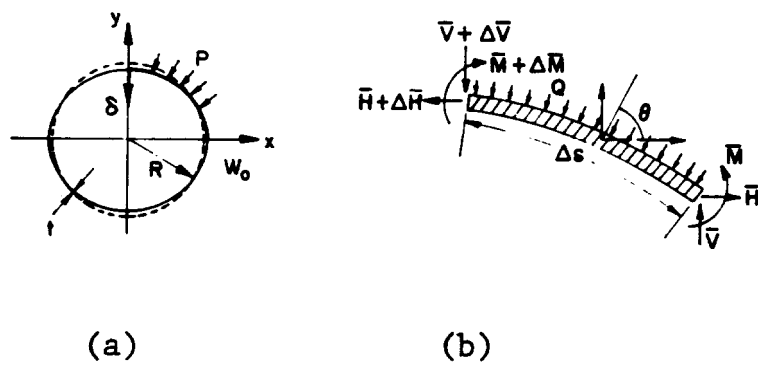
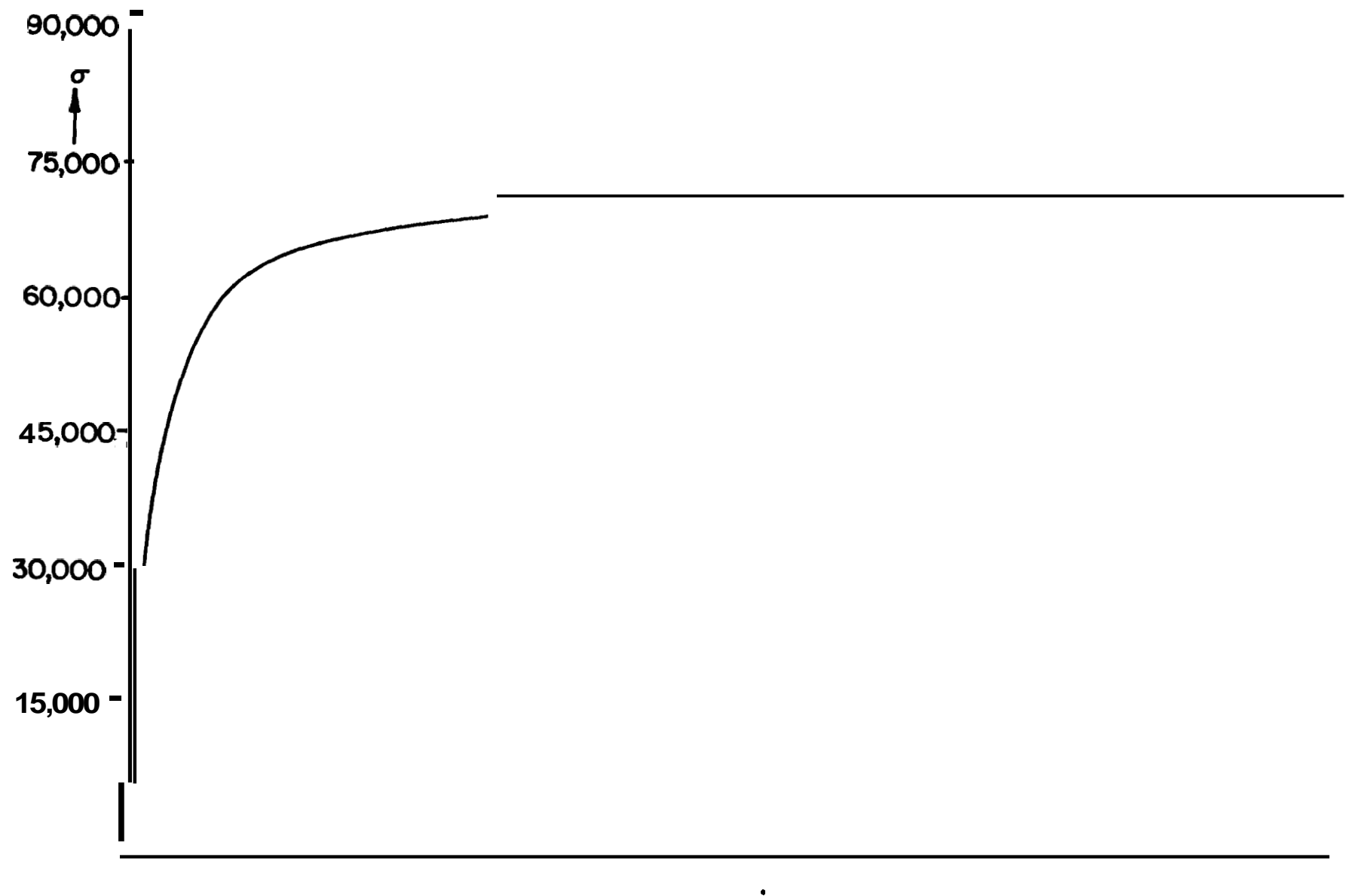


FIG. 46 (a) RING GEOMETRY  
(b) EQUILIBRIUM OF ELEMENTAL RING SECTION



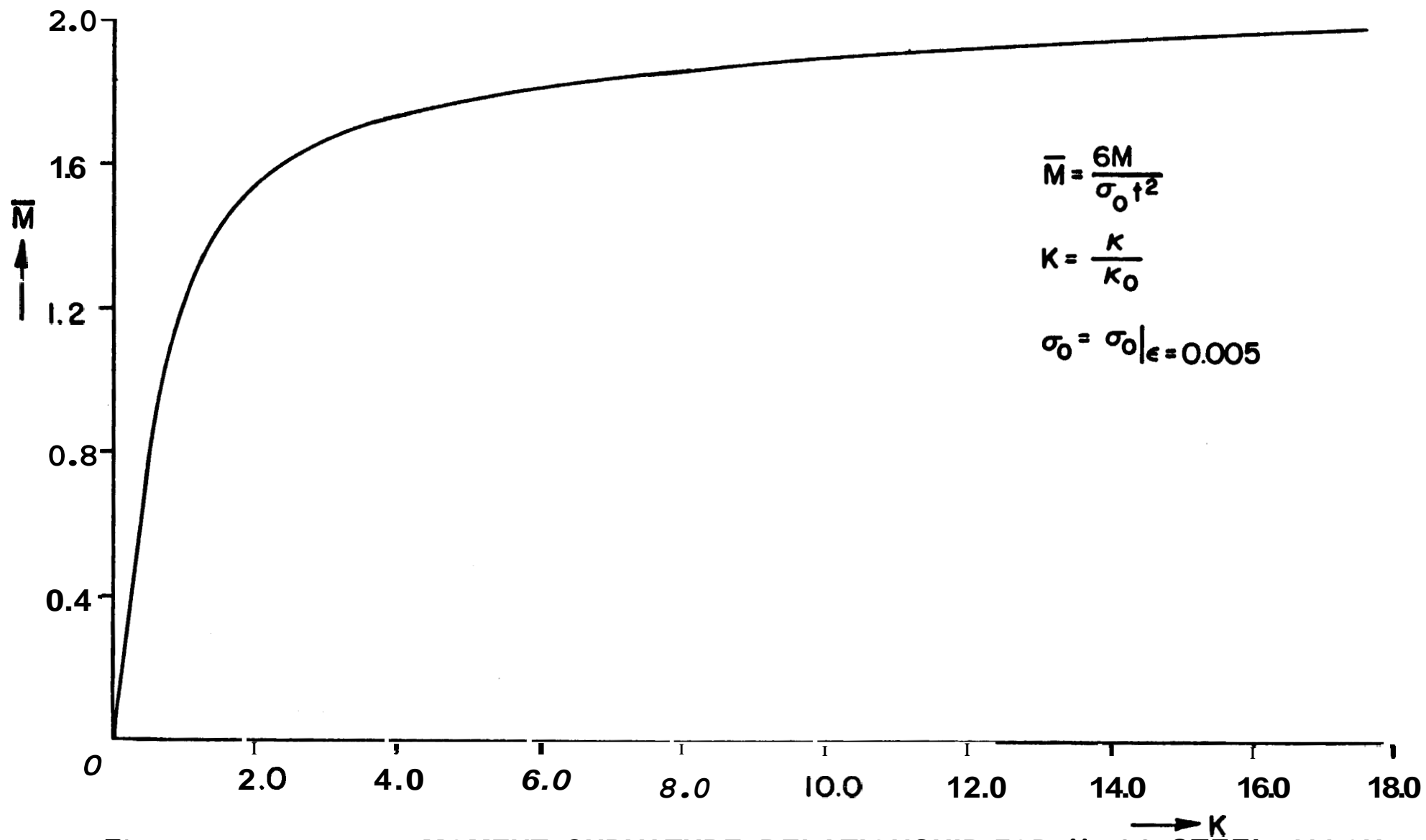
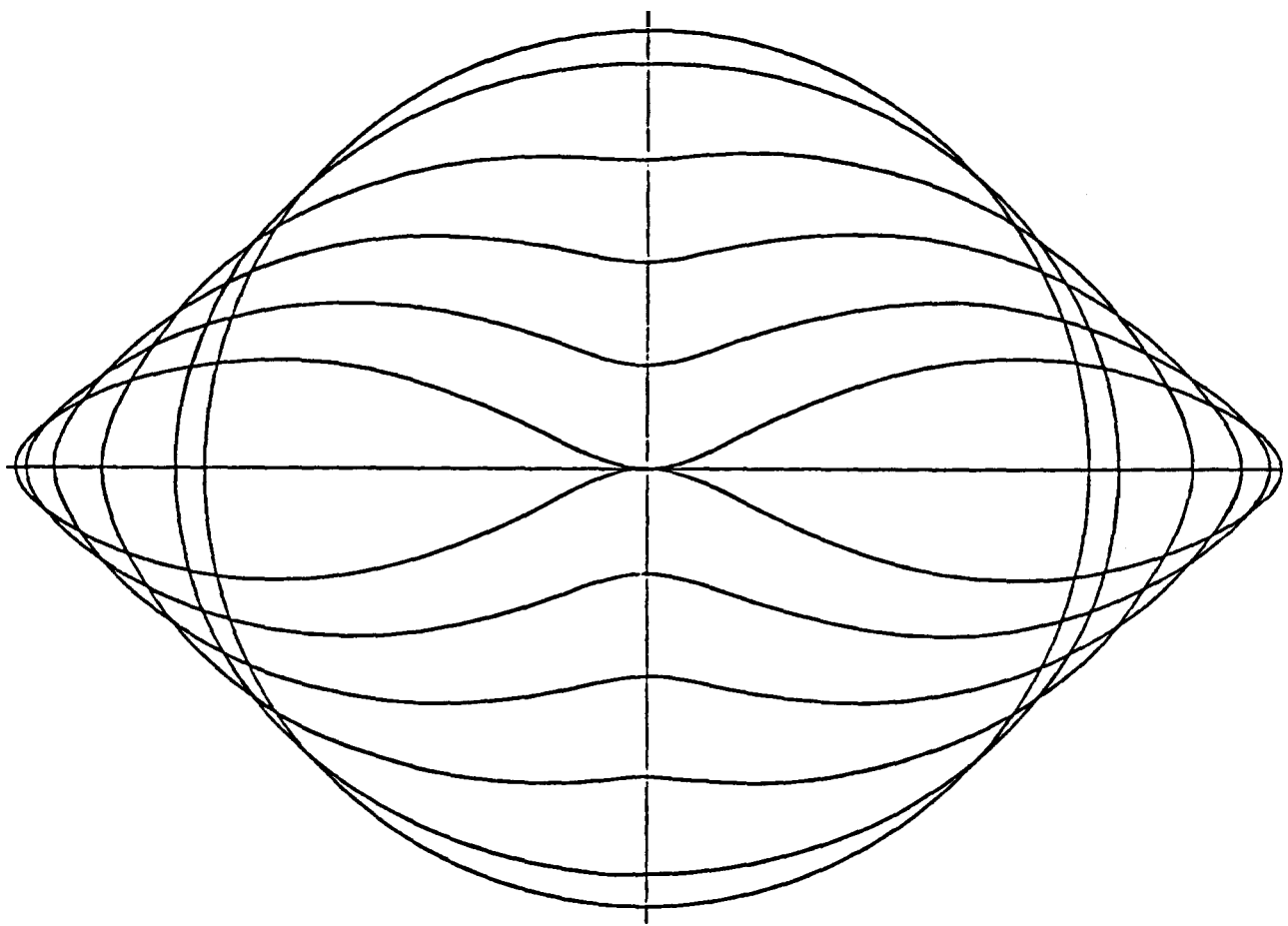


FIG.48 NORMALIZED MOMENT-CURVATURE RELATIONSHIP FOR X-60 STEEL ALLOY





**FIG. 49** COLLAPSE SEQUENCE OF A CIRCULAR RING

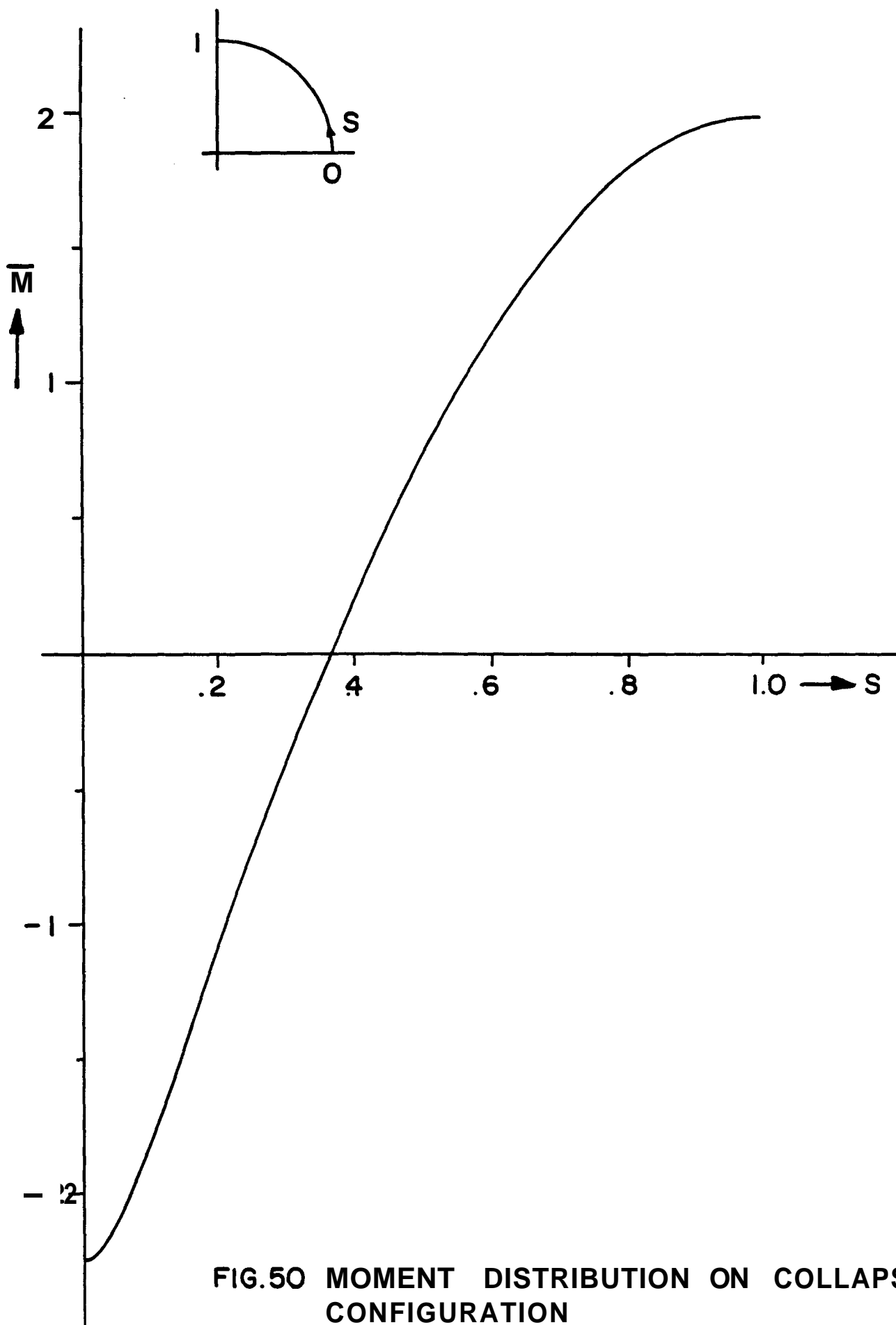


FIG.50 MOMENT DISTRIBUTION ON COLLAPSED CONFIGURATION

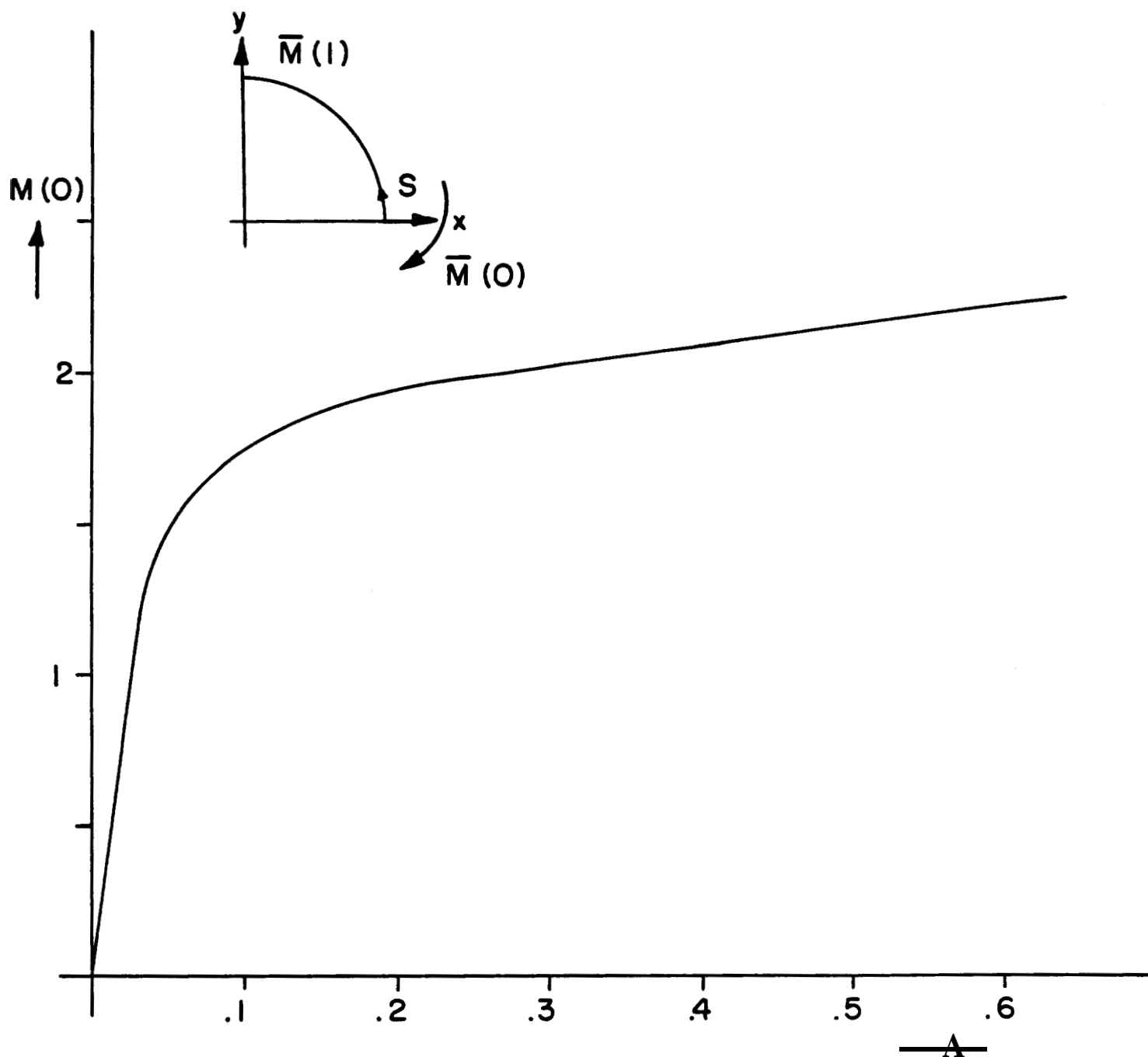


FIG.5I VARIATION OF MOMENT AT  $S=0$  WITH  
DISPLACEMENT AT  $S=1$

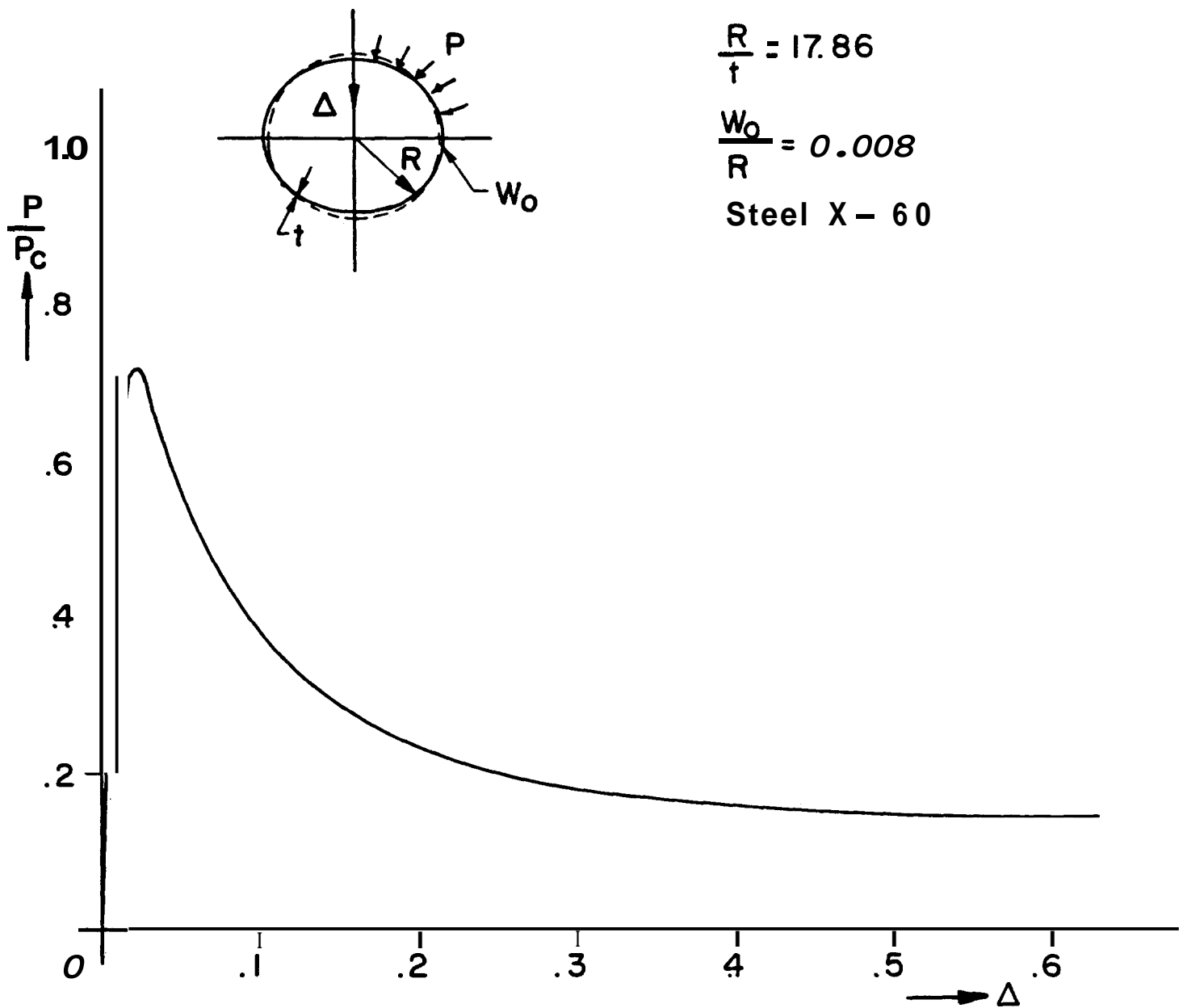


FIG.52 COMPLETE POST BUCKLING BEHAVIOUR OF INELASTIC RING

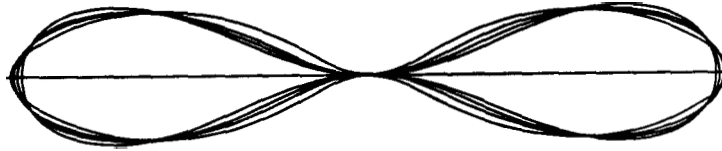


FIG. 53 VARIATION OF COLLAPSED CONFIGURATION WITH  
MATERIAL POST-YIELD SLOPE

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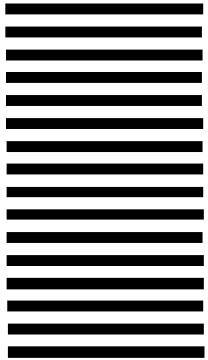
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